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ABSTRACT

This book presents a compilation of papers generated by the research unit of the Comer School Development Program. The program operates from the basic theme that if school staff understand child development and how to organize and manage their school building as a social system, a climate that facilitates learning among the greatest number of students will exist. Papers and their authors are as follows: "The School Development Program: A Holistic Educational Approach" and "Empowering Schools: Process and Outcome Considerations" (Norris M. Haynes); "Implementation of the Yale School Development Program in Two Middle Schools: An Ethnographic Study" (Edward Joyner, et al.); "Evaluating School Development" (Norris M. Haynes, Khalipha Bility); "Teachers' Attributions for Student Performance: The Effects of Race, Experience, and School Context" (Valerie Maholmes, et al.); "Parent Involvement and School Improvement" (Keith Bruno, et al.); "Self-Concept as a Mediator of School Climate Effects" (Christine Emmons, et al.); "School Development Effect: Two Follow-Up Studies" (Norris M. Haynes); and "An Examination of the Psychosocial and School Achievement Characteristics Among SDP and Non-SDP Middle School Students" (Norris M. Haynes, et al.). References follow papers. (GLR)

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School Development Program Research Monograph

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Yale Child Study Center

SCHOOL DEVELOPMENT PROGRAM

Norris M. Haynes, Ph.D.
Editor

May 1994

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School Development Program
Research Monograph

With a Preface by Donald J. Cohen, M.D.

and

An Introduction by James P. Comer, M.D.

Edited by

Norris M. Haynes, Ph.D.

This volume is dedicated to the loving memory of Mrs. Shirley Comer,

Mother of the School Development Program

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Foreword

Twenty-five years ago, Comer realized that "A staff that understands child development and how to organize and manage their school building as a social system is best able to create a climate that facilitates learning among the greatest number of students." As part of the 25th Anniversary celebrations of the Comer School Development Program, this research monograph has been prepared. The monograph presents a compilation of papers generated by the research unit of the SDP under the directorship of Norris Haynes. It is worthwhile to mention that the researchers whose works are presented in this monograph see themselves as participants-conceptualizers (Reiff, 1966) in an Action Research program developed for the improvement of communities and especially the well-being of children.

The papers are connected by, first of all, the view that *school climate* encompasses the ethos and the entire social and academic context of the school. As a theoretical analysis of the Comer Process notes, through the Comer Process, "Mutual respect and trust will then grow over time, becoming part of the ethos of the school and contributing to the positive social climate that is the primary agent of all educational change." (Anson et al.,1991) In connection with the school as a social system, Haynes (1993) writes, "The school first creates a school climate that permits parents and staff to support the overall development of students in a way that makes academic achievement, and desirable social behavior possible." Focusing upon the interactions that occur in school social systems, Emmons, whose paper on self-concept as a mediator of school climate effects is included in this compilation, after reviewing the literature on school climate reached this definition: Behavior, attitude, and achievement levels of students, are to a large extent a reflection of the school climate, defined in this context as *the frequency and quality of interactions* among parents, teachers, students, the principal, administrators, and adjunct staff (Emmons, 1993). In this view, the child's learning process is seen as involving the school environment in toto -- through interactions with others (including both intentional, purposeful interactions and the offhand seemingly inconsequential remark or gesture), by observing disciplinary measures taken on peers, overhearing how the adults in the building interact with each other, by noticing the care given to the school building, through contact with written and other cultural products and, especially, through a significant adult who takes interest in him.

In conjunction with school social system climate, Haynes (1991) has used the term *ethos*. The anthropologist Clifford Geertz (1979) advanced the use of this word to describe a people's: "tone, character and quality of their life, its moral and aesthetic style and mood - and their world-view - the picture they have of the way things in sheer actuality are, their most comprehensive ideas of order." Haynes translates this understanding of ethos to the school setting by noting that, in effect, the school functions as a cultural community in which empowerment of all its members, especially parents, is essential for creating the sense of community which undergirds student learning and development. He writes in chapter two of this monograph:

> Climate refers to the prevailing mood or ambience in school; the tone and texture of the school environment. School empowerment seeks to promote a positive, healthy school climate through: 1) fostering respectful and supportive human relations; 2) developing and implementing sound academic and social programs; 3) establishing high performance and behavioral standards; 4) maintaining high expectations for all students regardless of race, socioeconomic background or gender; 5) providing needed resources and physical conditions conducive to teaching and learning.

The school's ethos and social system climate, the accumulative effect of the myriads of interactions that occur in schools, have an impact upon student development. The consistency of patterns such as Supporting and Caring or Order and Discipline that is maintained "across hundreds of separate interactions" (Firestone and Wilson, 1984, p. 5) are perceived by the student in daily interactions, special programs and in the curriculum. The child learns from mediators in the environment, from direct exposure to stimuli and his own reflection upon the experience, and from being in the midst of an intentional school environment that functions as a cultural community for the child. The child learns from the interactions that occur in the school setting -- even from interactions among the adults in the building that he might only be vaguely aware of, if at all. Yet these interactions impact upon the school ethos and social system climate and the specific environment radiating towards the child is influenced by these interactions.

The second unifying theme of the papers is a "whole child" approach to understanding child development. In the psychological discourse of the Comer School Development Program, student development along the six developmental pathways of the Self (physical, psychological/emotional, social/interactive, speech/language, cognitive/academic and moral/ethical), is seen as the aim of education. Therefore, the Comer Process is concerned with behavioral outcomes (egs. student achievement, school success, school attendance), the nurturing of, in R. S. Peter's (1967) words, "a desirable state of mind in a morally unobjectionable manner" (egs. informed, productive citizen; objective weigher of conflicting arguments; contributor to one's cultural community), and facilitating the students' attainment of the highest levels of development, that is, the attainment of the well-managed Self which is gendered by the strengthening of linkages among all of the developmental pathways. As Comer notes in his *Introduction*, school reform initiatives have given attention to "cognitive development and academic achievement as if they were isolated from overall development." The outcome of these approaches, he adds, is a Culture of Failure in schools unable to address the needs of underdeveloped or differently developed children. The impact of school environments which are psychologically inadequate in "awakening" (Vygotsky, 1978, p.90) development is a theme that runs throughout this monograph, especially in the papers which address the link between school climate and self-concept, and between self-concept and achievement. In order to create in schools a self-perpetuating "qualitative locale, a nurturing, mediating, and mind-expanding exploratorium" (Presseisen et al., 1993, p. 9) that will facilitate "whole child" development, schools must be strengthened to enable them to meet the formidable challenges they confront in educating a new generation of students. In this monograph, therefore, Haynes addresses the topic of school empowerment.

The third unifying theme of the monograph inheres in the realization that an integrated research team approach is necessary to capture this understanding of school climate. Therefore, the papers interweave quantitative empirical research, ethnographic case studies, qualitative observations, and a theoretical base centering on knowledge of Child Development and Human Ecology Systems Theory in order to, in Haynes' words, "evaluate the importance of school process and context factors in the effective teaching and learning in schools, reflected in positive student outcomes." Staff members of the SDP Research Unit bring to the Comer School Development Program a wide-range of expertise in different fields, experience in educational settings, and personal interests.

Overview of School Development Program (SDP) Research and Evaluation (R&R) Activities: Past, Present and Future

Research and evaluation have always been integral components of the School Development Program's work dating back to the program's inception in 1968. Dr. Comer's emphasis on monitoring and assessment as key operations to be carried out by the School Planning and Management teams in the two pilot schools, has remained a central focus in our expanding work. What have changed are the research questions we ask, the research hypotheses we test and the evaluation designs and methodologies we employ to address the research questions and related hypotheses. We have progressed from limited focus on consumer satisfaction and diagnostic data, collected through relatively unscientific methods, and needed for program adjustment and refinement, during the early years of the program's existence, to much on rigorous scientific quasi-experimental methods and ethnographic case studies during the past eight years.

Recently, we have expanded our R&E activities to include a more comprehensive and extensive assessment of our training activities using our Attitude, Skills and Knowledge (ASK) inventory. We are beginning to examine the prior attitudes, skills and knowledge that trainees bring to the training sessions, their immediate and short-term benefits from the training and their transfer of acquired attitudes, skills and knowledge (what we call the ASK factors), to their work settings in their districts and schools. With our new systemic change initiatives, we are additionally preparing to examine system context factors such as: curricular, assessment and standards policies, as well as human and material resources availability and utilization.

We also support the ongoing external evaluations of our work being conducted by Dr. Thomas Cook of Northwestern University and the ABT Associates Research team headed by Dr. Mary Ann Millsap.

Our research and evaluation efforts are guided by a set of important overarching questions which are subsumed under three major types of research and evaluation activities. Following is the R&E typology and related questions.

A. **Research and Evaluation Typology**:

Needs Assessment (context Analysis):

Question: **What are the existing (baseline) conditions?**

In our needs assessment activities we collect baseline data on critical school level, student, staff and parent variables. Some of these variables include:

School:

school climate (students', parents' and teachers' assessments)

Student:

achievement

attendance

suspensions

retentions

referrals for disciplinary action and to special ed

self-concept

Staff:

efficacy

Parents:

involvement

These baseline data are used for planning and goal setting during the development of the comprehensive school plans. These data also serve as pre-test data in our cumulative assessment studies.

Formative Assessment (Process Analysis):

Question: **How is the process being implemented?**

In our formative assessment activities, we examine the level and quality of program implementation. We have used a variety of instruments and techniques over the years to conduct our formative assessments. We have used: structured interviews, observations, an implementation checklist, a management survey and most recently our Process Documentation Inventory (PDI). The PDI represents the integration of our best thinking about what a complete set of implementation quality indicators should include. The PDI is a self-administered instrument used by the school teams to monitor and assess their level and quality of implementation at regular intervals. The management survey is used as a summative measure of end-of-year cumulative assessment of implementation. It is administered by our research staff and the data used to correlate level and quality of implementation with outcomes.

Summative Assessment (Outcomes Analysis):

Question: **What effects has the process had?**

In our summative assessment activities, we examine program outcomes on the critical variables identified above in the discussion on needs assessment. We use a multi-method, multivariable approach to measure program effectiveness. Quasi-experimental, cross-sectional studies have been our most widely used research and evaluation strategy. We have also used time series analyses of aggregated school profile data to assess the impact of the program on school level growth and change. We have just begun, this year, to design and conduct longitudinal studies in which we will follow randomly selected cohorts of students in SDP and non-SDP schools for at least five years. With this new thrust, we plan to include graduation and dropout rates in our outcome measures and hope to follow students beyond high school.

B. **Findings**:

Our general findings for each of the three types of R&E activities, and in response to the related questions, are summarized below. The findings presented here are not exhaustive and are generally representative of the most significant results at each R&E stage.

Needs Assessment (Context Analysis):

What are the existing (baseline) conditions?

1. Most schools with which we first work tend to be low-income and predominantly African-American and of other minority groups in terms of student demographics. However, increasingly we have begun to work with schools with more higher-income and ethnically diverse student populations. Increasing numbers of our schools have student populations that are predominantly white and/or middle income.

2. Many schools with which we first begin to work are relatively low-achieving. However, as the program expands, we are beginning to work with schools that have varying levels of achievement.

3. Most of the schools with which we first begin to work have traditionally been characterized by high levels of student adjustment difficulties, including discipline problems, low academic self-esteem, and high levels of student absenteeism, retention and suspension rates. As the program has become more widely disseminated, we are seeing greater variance on these baseline measures.

4. Generally, parent involvement is low in schools with which we first begin to work.

5. In many schools with which we first begin to work teachers' feelings of efficacy to help children achieve at acceptably high levels, are low.

6. Generally, in the schools where we first begin to work, students, teachers and parents report relatively low assessments of the climate in their schools.

These baseline contextual conditions often serve as the basis for setting goals, establishing objectives and defining specific programmatic activities and interventions, as part of the comprehensive school planning process.

Formative Assessment (Process Analysis):
How is the process being implemented?

1. Generally most districts and schools go through at least four implementation phases: (1) Orientation (information sharing and learning about the program, (2) Transitional (establishing the nine elements of the program: 3 mechanisms, 3 operations, and 3 guiding principles), (3) Operational (nine elements in place and working relatively well, (4) Integration/institutionalization (demonstrably significant changes on progress indicators and outcome measures.)

2. For most schools, the close, frequent and regular involvement and support of the SDP facilitator is critical to the quality of implementation of the process, especially during the first three phases.

3. In many schools, planning teams and psychosocial support teams which existed prior to the initiation of the SDP adjust their modus operandi to be more consistent with the philosophy and guiding principles of the SDP.

4. In most schools, the leadership, and commitment of the principal to the principles of collaboration, no-fault and consensus significantly affect the quality of implementation of the program.

5. In most schools, the level of understanding, and degree of buy-in by the general staff significantly affect the quality of implementation of the program.

6. Most schools find parent involvement to be the most challenging, and among the most rewarding aspects of the program.

These formative assessment findings often serve to inform program adjustment, refinement and further planning.

Summative Assessment (Outcomes Analysis):
What have been the effects of the process?

1. Positive changes in student achievement have been noted in many schools.

2. Positive changes on student adjustment indicators (suspensions, retentions, attendance, referrals) have been reported in many schools.

3. Positive changes in teachers' attitudes and feelings of efficacy have been reported in many schools.

4. Positive changes in parent involvement have been reported in many schools.

5. Positive changes in students', staffs' and parents' assessments of school climate have been reported.

6. Some SDP schools report significantly higher mean scores than non-SDP schools on desirable outcome measures (e.g. achievement self-concept) and significantly lower mean scores on undesirable outcome measures (e.g. absenteeism, suspensions).

7. The degree to which the SDP significantly affects the identified outcomes appears to be related to the level and quality of program implementation.

The data sources for these generalizations are: (1) research studies conducted by the SDP research and evaluation unit during the past eight years, (2) a review of the research literature and meta analysis by external evaluators, commissioned by the Rockefeller Foundation, (3) several dissertations and papers written by students at several universities, (4) some work in progress.

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Director of Research

Michael Ben-Avie, M.A., G.S.
Predoctoral Research Fellow

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Preface

Research in School Reform:

The Comer School Development Program at 25

The Comer School Development Program has had an enormous influence in the contemporary view of the role of schools in the lives of children and families. The theoretical perspective of the SDP seems so natural today that we can hardly believe how novel it is and the challenges that its founder faced as he first presented his ideas. The profound influence of social and emotional development in shaping academic success, the role of parents in schools, the concept of school atmosphere as a defining factor in school reform: these, and other concepts which are part of current theory are all related to the SDP contributions.

The SDP is based on an understanding of the ways in which children develop in the context of family and community. But it moves beyond ideology to a clearly defined set of structures for assuring changes in the ways school see their basic mission --- that is, the ways schools see the children and their families and how teachers and principals see themselves. By conceptualizing new structures of governance, the SDP also has been, in its own way, a force for fundamental change in the political structure of schools. Today, SDP is moving forward in rethinking the functioning of school systems, on one hand, and the integration of social concepts and curriculum, on the other.

When the National Commission on Children, chaired by Senator Jay Rockefeller, was developing its recommendations on school reform, the Comer model was seen as the most important model and was site visited. Throughout the United States, the Comer model today is being adapted and replicated. There are many factors that account for this success:

- the secure, steady and scholarly leadership of Dr. James Comer and his capacity to quietly recruit others into the shared work of school reform

- adherence to fundamental child development principles

- respect for parents, families, teachers, administrators --- in short, for everyone who plays a sincere role in the lives of children --- and for children, themselves

- the thoughtful approach to implementation through engagement of the leadership of systems and of communities, as well as the leadership of schools

- the commitment to programmatically sensitive evaluation

- the recognition of the need for a long term perspective and the avoidance of glib slogans, quick fixes, and slick new methods

Today, at 25, the SDP has achieved national and international recognition as a proven, effective model for improving the functioning of schools. In addition, the SDP serves as a model for how other social systems can be reformed to better serve their primary missions for children and families.

Everyone who has been near the SDP has learned a great deal about children and education, and about the process of how one learns through deep involvement in the lives of institutions and their communities. Yale University and the Child Study Center are among the institutions that have benefitted and have been profoundly influenced by the work of Dr. James Comer and his colleagues. As one of Jim Comer's students, it is particularly meaningful to take this opportunity to express appreciation for what he has taught all of us in the Child Study Center and throughout this nation about the intrinsic connection between humane, scholarly pursuit of knowledge and steady, clear sighted advocacy for change.

Donald J. Cohen, M.D.
Director
Child Study Center
Yale University

Introduction and Problem Analysis

School underachievement, and leaving school without adequate cognitive skills and knowledge, were not significant social problems in our society until the past three decades. Only within the last decade have the serious consequences of these problems for the nation's future gained widespread attention. Even now the focus is often on the underachieving student and the underachieving school and not on the underlying structural changes that have precipitated the growth of a large body of educationally disadvantaged young people. We believe that in order to adequately address the problem it is important to consider the effects of major changes in the nature of our economy, and other structural factors, and their impact on our communities, families, child rearing and development and the lag in response of schools and other institutional supports for child growth and development.

In 1940, only 20 percent of persons over 25 years-of-age had finished high school (U.S. Department of Commerce, 1988). But during that period it was possible for young people to leave school and find employment that permitted them to carry out expected adult tasks with very low levels of cognitive skills and knowledge--to provide for themselves and their families; and as a result, to be able to find satisfaction and meaning in life; and to be motivated to become responsible members of their social networks and the society. This had been the case during the agricultural era before 1865, in the early industrial era between 1865 and 1900, and through the heavy industrial era between 1900 and 1945.

The rapid application of scientific and technological knowledge to production after 1945 required the work force to have higher levels of cognitive development. High levels of education became the ticket of admission to the primary job market, even when the job did not require it. It became increasingly difficult for young people to leave school and meet their adult responsibilities without a reasonably high level of cognitive skills and/or knowledge, and education credentials.

The acquisition of a reasonably high level of cognitive skills in knowledge is most often made possible through adequate overall development-social interpersonal, psycho-emotional, moral, linguistic and cognitive. Parents in a reasonably well functioning families, enmeshed in reasonably well functioning social networks of friends, kin, social and spiritual institutions have the best chance of supporting the growth and development of their children to the level necessary for them to acquire an adequate level of cognitive skills and knowledge. And when the acquisition has utility and reward in their social networks and the larger society, young people are more often motivated to acquire it at the level necessary.

Most European Asian immigrant groups had a better opportunity to establish a broad base of well functioning families and social networks than minority groups--Blacks, Hispanics, Native Americans in particular. It is commonplace to consider the experience of all of these groups as basically the same, or very similar. But the experiences were different in critically important ways. And the ways in which they were different point to the roots of the problem of educational disadvantage.

Political, economic, and social opportunities were available within one generation for most immigrant groups, with a high level of cultural continuity from the old countries to the new. As a result there was an intergenerational transmission of organizing and constructive socio-cultural attitudes, values and ways. Family and social network deterioration was minimal. This facilitated three generations of group development and education among early immigrants that parallel and met the demands of a changing economy--unskilled and uneducated before 1900, moderately so between 1900-45, highly skilled and educated between 1945-80, on into the post industrial age after 1980. Early immigrants benefitted greatly from the rising tide of affluence in the country with and without education.

Also, before television and high mobility the major source of knowledge, information, and expectations were powerful community figures who greatly influenced parents, and they, in turn, greatly influenced their children. Teachers, religious and civic leaders and other authority figures were often a tangible part of most neighborhoods and social networks. The school was a natural part of the community and there was an incidental and automatic transfer of the authority of parents to the school. This minimized behavior that could have greatly interfered with teaching and the acquisition of cognitive skills and knowledge. School staff, reinforced by parental and community sanctions, were able to support overall student development and learning.

In the 1970's and the post-industrial age after the 1980's, the level of development needed for children to succeed in school and in life increased rapidly. The families most adversely affected by conditions of the past were least able to give their children the kinds of pre-school experiences that would prepare them for the expectations of the school. As a result, a disproportionate number of such children enter school under-developed, and sometimes, simply developed in different ways. They have attitudes, values and ways that work successfully for them on the playground, the housing project and a variety of other areas in their neighborhood and social networks, but work to their disadvantage in school. Their social-interpersonal underdevelopment is often viewed a bad or troublesome behavior in school. Their linguistic and cognitive underdevelopment is often viewed a evidence of limited intellectual ability.

On the other side of the equation, school reforms in the 1930's through the 1950's were driven by scientific and technological changes. Attention was given to cognitive development and academic achievement as if they were isolated from overall development. The fact that community and its support for overall development and learning was weakened or lost to changes created by high mobility and mass communication was largely overlooked. The size, organization and management, and location of schools largely ignored community and relationship issues and needs. Neither pre-service nor inservice training of school teachers and administrators considered these issues in a meaningful way. Even today many school personnel receive no training in the application of child development relationship knowledge to their work with their student and the management of their schools; in fact, many educators-researchers, public policy makers, and practitioners--do not appreciate the relationship between home-school experiences, overall development and the ability of students to function in the cognitive area.

The response of school people, without adequate preparation, is to punish what they understand as bad behavior and to hold low expectations for underdeveloped or differently developed children. This leads to difficult interactions between students and staff, and in turn staff and parents, and eventually a "Culture of Failure" in school. Distrust, anger and alienation often develop between home and school. This makes it difficult for parents and staff to relate in ways needed to support the level of overall development needed for children to function well in the cognitive area necessary for school success. Such a relationship is more important today than ever before because parental and community sanctions no longer incidentally and automatically support schools.

The outcome is that most schools are unable to address the needs of underdeveloped or differently developed children from families marginal to the mainstream of the society; children in families where there is a misalignment between home and school experiences and expectations.

Difficult initial student-school social interactions compound cognitive skill and knowledge underdevelopment and leads to early school failure. School failure contributes strongly to increased interpersonal or behavior problems and, in turn, leads to failure in later school and eventually school leaving. Without a realistic chance of school success, the need to establish identity and belonging that occurs in early adolescence makes it difficult for many to embrace mainstream attitudes, values and ways--including a commitment to academic learning. In fact, when they are asked to do so they are often being asked to be different than their own parents; and often the parents are in conflict with mainstream goals. Then objective evidence of limited mainstream opportunities in school and in the community begins to lower the school achievement trajectory even among many who were doing reasonably well in early school years. And, as previously mentioned, school underachievement and leaving without adequate cognitive skills and knowledge limits employment opportunities; makes it difficult for such young people to carry out expected adult life tasks.

Our most successful students in school are those from better functioning families who attend schools where there is home-school social congruence and the schools have not developed a "Culture of Failure." Thus, the school, the institution in the strategic position to remove educational and life disadvantage, has not made the kind of adjustment necessary to allow it to do so, except by chance attributes and conditions among a particular school staff or community, and in model or demonstration programs.

Much attention has been given to the school success of recent immigrants. And yet it appears that the same conditions that permit success among all groups pertain among those who are successful among recent immigrants. Groups, and families among them, that are able to maintain their socio-cultural integrity, and are able to experience reasonable opportunities within one generation, most often produce students who are able to succeed at a high level. The opposite conditions, with rare exceptions, result in opposite outcomes. It is instructive that Black and Hispanic immigrants from the Caribbean-Central American countries and Africa appear to be succeeding in school disproportionately when compared to Black Hispanic Americans who experienced cultural discontinuity, exclusion and a denial of rights over a significant period of time.

The pre and early industrial age experience of various groups, and the subsequent impact of structural changes related to the industrial and post industrial ages, not only suggests the causes of school problems, but also suggests the direction for research and the kind of intervention needed to decrease educational disadvantage.

Over the last 25 to 39 years basic and applied research in education has focused on discrete areas, groups or time frames--teaching and curriculum, the school as a social system, the home, the community, and students at all ages and school levels. Research findings and utilization from these approaches have been numerous. But the historical experience of groups disproportionately represented among the educationally disadvantaged, as well as that of groups of majority children who are underachieving in school, suggest that understanding the interaction between home, school, teaching and curriculum, communities--and the impact of this interaction on student development--should provide the critical knowledge necessary to reduce educational disadvantage. Too little attention has been given to the interaction of these various components. Such an approach should enable us to study the effects of family and community marginality or misalignment with the mainstream culture the school represents; the effects of teaching, curriculum, school organization and management, staff training that is not geared to address marginality or misalignment.

Our Yale Child Center School Development Program, through basic and applied research, has addressed these issues over the past twenty years. We are particularly interested in the barriers to change in schools and school systems, as well as barriers to change in communities under stress with a disproportionate number of poorly functioning families. This monograph represents a synthesis of the most promising findings in educational research. It underscores the need for us to operate in a way that will make the knowledge from our work, and that of others throughout the country available to other researchers, practitioners, policy makers, and all others with a stake in positive educational outcomes.

James P. Comer, M.D.,
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Director, School Development Program

Chapter One

The School Development Program:
A Holistic Educational Approach

By

Norris M. Haynes, Ph.D.

Introduction

The developmental school years are a period of significant change in the lives of children. As children transit from one level to another they face significant challenges. The passage from elementary to middle and then to high school is characterized by psychosocial turbulence, physiological upheaval and attempts to resolve childhood conflict while confronting new challenges in adolescence. The successful transitioning from children to adolescence requires supportive, caring adults and environments that are conducive to the development of positive self-concepts and effective problem solving skills.

Traditional school environments have not provided the structures, mechanism and operation that support the total development of children across the developmental level. Schools have generally not given adequate attention to the specific developmental concerns that affect psychoeducational growth of students and particularly those from non-mainstream backgrounds. Social pressures on children have increased the urgency for use as concerned educators, to reinforce their resilience and help them adopt attitudes, values and behaviors that lead to school success and well adjusted lives.

The need for school reorganization, collaborative leadership, training, adequate teacher preparation to address the needs of middle school children cannot be over emphasized. Comer (1988) noted:

"Yet most teachers and administrators are not trained to organize and manage schools in ways that support the overall development of students. Nor does their training enable them to analyze, much less solve, the social misalignment problems of children from outside the mainstream. The first step toward improving the education of these children then, is to induce teachers' colleges and schools of education to focus on student development. Teachers who invest time in training will have an incentive to use what they have learned. The efforts of individuals will not be enough; the entire staff of a school must embrace new ways of thinking." (p.48.).

All the money and effort expended for educational reform will have only limited benefits--particularly for poor minority children--as long as the underlying developmental and social issues remain unaddressed." (p.48.)

Bandura (1988) reflected this sentiment when he asserted:

"The development of cognitive competencies plays a permanent role in the pursuit of prosocial life course--our nation's schools are not serving disadvantaged children well. Most inner city schools display major deficits in their educational development."

Theoretical Perspective of The School Development Program School Development

The School Development Program is a process of school change that provides, processes, and guiding principles which are designed to facilitate holistic child growth development. It is based on several premises derived from what we know about human relations and child development. These basic premises articulated by Haynes and Joyner (1992) include the following:

1. A child's overall development is influenced by his or her interactions with significant adults.

2. The transition from family to school is influenced by the ability and willingness of educators and parents to manage the challenges that emerge when there is divergence between the culture of the school and the culture of the home.

3. The ability of parents and educators to facilitate academic learning rests on a relationship between adults and children, that is characterized by trust, support, positive regard, high expectations, affiliation and bonding.

4. Adults and children are able to best meet their responsibilities in a supportive climate that emphasizes: a no fault approach to identifying and solving problems; a process that generates consensus decision making; and structures that promote collaborative working relationships.

5. That the best decisions about programs and strategies, including curricula are madebased on the careful analysis of qualitative and quantitative data about the characteristics and needs of students.

6. The welfare of the child becomes the concern of all significant adults in the child's life. Programs and activities are planned, implemented, and evaluated on the basis of their benefit to children.

7. Adult decision makers choose programs that fit students rather than conclude that there is something inherently wrong with students when children do not benefit from programs.

In order to implement such a process, educators and other adults should understand development and be able to have this knowledge be reflected in the school's curriculum, pedagogy, and social activities. These activities must address each of the six mental development pathways which undergird the philosophy and mechanisms of the School Development Program. The pathways are:

1. **Physical Development**: This refers to the physical health of the child. The child has an awareness of what it takes to be healthy with respect to nutrition, fitness, and responsible decision making. Growth results in the proper functioning of the body, which means that the child is able to master critical developmental tasks at appropriate biological milestones. This development assumes that the child receives adequate support during the early stages of development when he or she is dependent on adults for nurturing. As the child becomes dependent, he or she can and should become more responsible for his or her physical well being.

2. **Speech Language**: The child's ability to express himself/herself clearly and effectively, and to process communications received from others well, is focus of this pathways. The child is expected to speak and write in an appropriate manner, consistent with his/her developmental stage. The child is also expected to listen to what others say or read what they write at an age-appropriate level and formulate an adequate response when one is required.

3. **Moral**: This pathway is concerned with the development of strong and effective decision-making and problem solving skills that are age-appropriate. It includes the child's ability to respect the child's ability to respect the rights and integrity of others and to up-hold and defend his/her own rights and integrity. Thus, the child makes decisions and behaves in ways that are not deliberately harmful to others or himself/herself.

4. **Social/Interactive**: The focus of this pathway is the child's ability to develop and maintain good positive relationships with others. The child is expected to interact well with and other children. He/she should appropriately express his/her needs and wants, and negotiate with others for having these met. At the same time, the child respects and responds to the needs and wants of others when appropriate. The ability to work in mutually beneficial way, is a significant aspect of social development.

5. **Psychological/Emotional**: This pathway is concerned with the child's feelings of adequacy and self acceptance. It also addresses the child's ability to manage his/her emotions in a manner that is appropriate for a given context.

6. **Cognitive/Academic**: This pathway concerns the child's intellectual development. It addresses the child's acquisition of basic academic skills at appropriate points along developmental trajectory and his/her ability to engage in higher level thinking and problem solving skills when faced with increasingly complex cognitive tasks. Successful development along this pathway requires an environment that encourages exploration and risk-taking. Since language mediates all learning, it is a powerful factor in facilitating cognitive development.

Major Components of the School Development Program

The major components of the School Development Program are: (1) School Planning and Management Team (SPMT) (or School Improvement Team), (2) Mental Health Team (MHT) (or Student Staff Services Team (SSST) and (3) Parents Program. (PP)

School Planning and Management Team (SPMT): This component is the central organizing body in the school. It is led by the building principal and includes teacher and parent representatives. Its major function is to develop and monitor a Comprehensive School Plan which includes academic, social, and staff development goals. These goals intended address the perceived socio-educational needs of students and adults in the school. Specific programs are developed and/or selected to accomplish these goals. All school activities are coordinated by the SPMT. The presence of parents and teachers on this decision-making body provides for balanced representation, and input. The decision-making process that characterizes an effective SPMT is one of collaboration and consensus, opposed to autocracy or plurality.

2. **Student Staff Services (SSST)**: This component is led by the principal or assistant principal, and includes staff with child development and mental health knowledge and experience. These staff members often include: (1) school psychologist, (2) guidance counselor, (3) school nurse, (4) special education teacher, (5) attendance officer, (6) pupil personnel workers, and any other appropriate staff persons. The function of the SST is to address schoolwide climate and psychosocial issues that are likely to have an impact on the adjustment and life path choices. The SSST also deals with individual student concern issues that are referred to it. The MHT is intended to act in a preventive, preemptive way rather than in a reactive, treatment fashion. In Prince George's County, this component is referred to as the Student Staff Services Team.

3. **Parents Program**: This component is intended to involve parents at all levels of life. The majority of parents serve at the first level, which involves general support activities, including attendance at PTA, PTO or PTSA meetings, social events and other school activities. At the second level, some parents serve in school buildings, as volunteers aid assistants, in the library, cafeteria or in classrooms. Level three involves parents, who are selected by their fellow parents, to represent them on the SPMT. As members of the SPMT, parents serve as vehicles for transmitting the views and opinions of the general parent body on issues related to academic, social and staff development needs of the school. The Parent program bridges the gap between home and school. It serves to reduce the dissonance that disadvantaged students experience as they attempt to make adjustments from one environment to the other. By empowering parents, schools provide continuity in the socio-educational lives of children. This can also serve to strengthen families and help them build resilience in support of their children's development.

All three components come together to create a good school climate. The school becomes a well functioning social system where the developmental needs of students can be addressed. All children need to develop a sense of adequacy and efficacy to be successful. Their search for an identity intensifies as they mature and their aggressive energies need to channeled into constructive and wholesome activities. They benefit from cooperative and collaborative activities such as participating in community based projects. Such involvement increases resistance to negative and destructive influences in their proximal social environment. The SDP, because of its emphasis on social development and positive relationships, is seen as an effective socio-educational intervention for empowering school to positively influence the life paths of students.

District Level Support

In order for the SDP to be effectively implemented at the school level, there has to be total commitment to the process on the part of the district's superintendent of schools and to motivate district level administrators who are charged with overseeing its implementation.

The key central office person, however, is the SDP Facilitator in each school district, whose duty it to (1) disseminate information about the process in the district, (2) help schools organize the major components, and (monitor program implementation). The SDP Facilitator receives intensive training in the SDP process and its theoretical perspectives at the Child Center prior to assuming his/her responsibilities.

The major role of SDP staff at the Child Study Center is to: (1) train school district (2) monitor SDP implementation, (3) provide technical assistance.

Program Outcomes

Many studies have been conducted to assess the effects of the program on student, parent and teacher outcomes and general school climate changes. The results indicate that School Development Program has a significant positive effect on student achievement, behavior, self-esteem and overall adjustment. The data also show that parents feel more connected to their children's schools and some of them are motivated to go back to school obtain their high school equivalent diplomas or pursue meaningful work, including volunteer. Teachers also have repeated increased feelings of efficacy and satisfaction with work. Students, teachers and children have tended to assess the climate of their school including interpersonal relationships and feelings of being supported and motivated, more highly after the program has been in place than before.

Evidence suggests that the early positive effects of the program endure beyond elementary school grades into the middle and high school years and may carry over into young adulthood. However, assessment of the SDP's longterm impact requires more carefully designed longitudinal studies, in which cohorts of children are prospectively followed over several years.

Policy Implications

Our work in the School Development Program has significant implications for the reformulation of national education and social policy and the refocusing of educational practice across this country. Over the past decade, and most recently, with the President's new American schools initiative, we have informed and in some cases led the debate about what true educational reform means and what it must entail. We have asserted time and time again genuine reform in education must focus on addressing a number of key issues.

These include:

1. Much more focus on and support for pre-school readiness programs, such as Headstart and Dr. Zigler's school of the 21st century. The Comer-Zigler (COZI) project is a good example of future trusts.

2. Making the school an important integral service component of the community. The mission of the school changes from being only the purveyor of knowledge to being a central coalescing agent where vital services for children and families are provided in an integrated way. The relationship between learning and socioeconomic development is clearly recognized, and the school's action plan reflects this awareness. The Comprehensive School Plan in all of our schools include goals which address the relationship between the school and community. Activities are designed which promote an interface between service and school programs. Thus, the school becomes a true member of the community.

3. Reorganizing schools from hierarchical management systems of governance to systems of collaboration, and involvement of all of the key stakeholders in children education. This requires that power to make decisions and establish policy should not be the domain of any one individual

or a few individuals, but be shared equally by school administrators, staff and parents who work in mutually respectful, support rewarding ways, guided by considerations of what decisions are best for children.

4. Increasing access to family services in school communities, which allows parents and children to have basic physical and psychological needs met with minimum difficulty.

5. Infusing in school curricula and the social developmental experiences of children respect for themselves and for others, and responsible behavior and values that are with good citizenship and exemplary lives.

6. Recognizing the centrality of the family in the developing child's self-definition and development, and seeking to involve parents and guardians of children in meaningful ways, in children's school experiences. Families and schools must be seen as partners and not as antagonists, and parents must not be seen only as being on the periphery of the educational enterprise. This approach requires well defined mechanisms and strategies for ensuring meaningful parent involvement, including work place policy adjustment that are flexible enough to allow parents to participate more in their children's education.

7. Converting from a system of educational assessment which relies too heavily on standardized norm referenced testing, which in many instances is biased and unfair to children and minorities, to a system that is more performance-based, diagnostic and medial. This would be more consistent with a developmentally sound educational schooling. We espouse and support the use of alternative assessment strategies, such portfolios and exhibitions of students' work. These methods allow for consistent and continuous insight into students' creative capacities and

intellectual skill possible through the traditional standardized testing methods.

8. Developing curricula and pedagogical approaches that are sensitive and responsive to the diverse needs of children from various cultures, racial and ethnic groups and varying degrees of special physical, cognitive or psychological needs.

9. Attention to child development issues and an incorporation of child development preparation and a reemphasizing of these principles during the inservicing of practicing teachers. Schools of education have failed in most part to prepare teachers who are sufficiently knowledgeable about child development issues, and sensitive to the influence and experience on learning. In our partnerships with Universities and school district, we are seeking to impact the curriculum and pre-service practice experiences the Universities provide to their prospective teachers, professional support staff, and other school personnel in training.

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Chapter Two

Empowering Schools: Process and Outcome Considerations

By

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Introduction

Empowerment has now become one of the most widely used terms in discussions about educational reform and school improvement. The concept of empowerment undergirds most of the recent initiatives designed to bring about changes in schools. It has two related facets: (1) increasing individual efficacy through meaningful involvement and participation (2) increasing collective efficacy through mutual respect and decision-sharing. The idea is that schools must be strengthened to enable them to meet the formidable challenges they confront in educating a new generation of students. Urban schools in particular appear to need a double dose of empowerment as performance indicators show significant disparities between performance of minority students, from low-income backgrounds most of whom attend public schools in poor urban districts, and wealthier students who attend better equipped schools in more efficient communities.

The idea of empowering schools include several important and interrelated components. These are:

1) The decision-making apparatus in the school
2) The prevailing climate in the school
3) The mechanisms established to address issues
4) The interface between school and community
5) Monitoring, assessment and feedback strategies
6) Evaluation and assessment of school outcomes

Decision-making

A basic notion of the empowerment concept is that how decisions are made and who are involved in making them affect the quality of life for everyone involved in the schooling enterprise. Autocratic discussion processes are viewed as antiquated, counterproductive and inimical to the goals of good educational practice (Comer 1980). Collaborative decision-making based on mutual respect and informed consensus is viewed as a basic ingredient for success.

The empowerment view argues that principals, teachers, other support staff, and parents must share in the formulation, articulation, implementation and monitoring of school programs. They must together identify, define and delineate school goals in various domains and established performance standards. While there is general agreement that parents must be involved, there is no consensus on how and to what degree parents should be involved in management and operations decisions. Some see a very limited role for parents in supporting the general school program (Hess and Holloway, 1984) while others argue for a more involved role for parents in making key school policy decisions (Lightfoot, 1978). The role of students is also a point of debate. Should students be involved in decision-making processes, at what level, and how?

Decision-making is seen then to possess two main aspects: 1) content 2) process. The content of decisions concerns what is to be decided. The process concerns the who, when, where and how of decision-making. Content and process are closely related. What is to be decided may determine how many individuals are to be involved, who these individuals should be, when the decision is to be taken and where it is to be made. Whether or not parents or students are involved in a given decision may be linked to the nature of the decision. For example, a decision about scheduling Math and English classes may require the input only of school staff whereas a decision regarding the adoption of a dress code may require input from parents and students as well.

School empowerment involves a streamlining of the decision-making process and includes efficient decision-making through organized planning about how decisions are to be made. Thus, a defining characteristic of an empowered school is a meta-decision process in which school teams discuss not only content and process but also monitoring and assessment of decision-making. Judgments about how decision-making can be improved result from this meta-decision process. This process includes a regular, consistent review and analysis of the steps involved in making decisions.

School Climate

School climate is an important feature of school empowerment process. Climate refers to the prevailing mood or ambience in school; the tone and texture of the school environment.

School empowerment seeks to promote a positive, healthy school climate through: 1) fostering respectful and supportive human relationships; 2) developing and implementing sound academic and social programs: 3) establishing high performance and behavioral standards; 4) maintaining high expectations for all students regardless of race, socioeconomic background or gender; 5) providing needed resources and physical conditions conducive to teaching and learning.

The school environment may be conceptualized on two levels: 1) micro or classroom 2) macro or global. Each classroom environment is different. The teacher's personality; collective personalities of the students; number of students in the classroom; presence or absence of teacher aides or parent volunteers; the teacher's teaching style, size and color of the classroom; seating arrangements, and the rules of engagement, all constitute elements of the classroom environment. Each individual classroom contributes in a unique way to the global school environment and as much attention must be given to climate issues at the micro or classroom level as is given to the macro or global level.

The macro or global school climate is greater than the sum of the combined influences of classrooms. It incorporates the many other facets of school life that transcend collective individual classroom attributes. The spirit of a school is reflected in the lunchroom, hallway, library, office, health suite and playground. It is expressed in the way administrators, teachers, support staff, students, clerical and custodial staff and parents communicate and interact. The essence of the school is sensed and felt throughout the building.

Mechanisms and Operations

An important element of school empowerment is the quality of the school's program, that is the kinds of activities designed and implemented to address the needs of students, parents and staff. Just as important as the activities themselves are the structures or mechanisms which are established to plan, implement, monitor and assess the activities. Activities that are haphazardly undertaken cause confusion and conflict. They undermine the process of collaboration and partnership that are inherent to the notion of empowerment.

Management

A basic condition of school empowerment is the existence of a management structure that organizes and monitors all school activities. The membership of this structure should include a representative cross section of all the adults in the school including parents. The participation of students at this management level should be seriously considered. If students' direct involvement is deemed impractical or logistically difficult at this level, alternate routes for student input to management decisions must be developed.

In the School Development Program (SDP) development by Dr. James P. Comer at the Yale Child Study Center, this structure is referred to as the school planning and management team (SPMT). The team develops a school plan which contains (1) academic (2) social (3) staff development and (4) community relations goals. The team monitors these activities throughout the year. Other schools have similar mechanisms referred to by some as the school improvement team (SIT).

The idea of team is important. It suggests unity of purpose. Unity is crucial to empowerment. The letters "U" and "I" in the word unity ideally demonstrate the importance of total involvement of each person in the schooling process. If the letter "U" is omitted we are left with "NITY" which means lousy (derived from nit which means louse). If the letter I is omitted we are left with "unty" pronounced untie. Without I, there is an untying of the bond of unity and togetherness essential to strong team leadership and effective governance. Thus both "U" (you) and I are important to the process. Without total involvement the process is compromised.

Psychosocial Support

Another important mechanism in the school empowerment process has to be a structure that addresses psychosocial and child development concerns and issues. The membership of this structure should include staff members who are knowledgeable about child development issues and experienced in mental health and behavior intervention techniques. These individuals normally would include: a school psychologist, counselor, social worker, special education teacher, school nurse and other specialist. Within the school development program (SDP) framework this structure is referred to as the mental health team (MHT), in some school districts. Other school districts seek to avoid the mental health label and therefore refer to this structure differently. In one school district it is called the student staff support team (SSST). Regardless of the label used, the function of the team should encompass three basic areas of responsibility:

The first area of responsibility is the global school context. The team develops programs and activities that proactively serve to address general school context issues which support effective instruction, learning and healthy adjustment among students. This approach is preventive rather than reactive. Some example of preventive strategies undertaken by these teams include: 1) informational and discussion student groups which focus on drugs, human sexuality and violence 2) self-esteem enhancement projects 3) community service information sessions for families 4) social skills development curricula and training programs for staff and students.

The second area of responsibility is the classroom environment. Teachers are encouraged to capitalize on the expertise among members on the mental health or support team. They have a source of direct support in dealing with classroom management, instruction and interpersonal issues. Members of this team serve as consultants to the teacher and with the agreement, and at the request of the teacher, may visit the classroom to observe classroom dynamics and offer suggestions. This kind of peer support and collegiality serves to enhance classroom instruction and learning and also reinforces the spirit of collaboration and team work that characterizes an empowered school. Supporting teachers and individual students in classrooms is part of the total empowerment process.

The third area of responsibility for the team is direct intervention in individual student cases. These cases are normally referred to the mental health or support team by teachers but may also be referred by administrators, other support team members and in some cases by parents. Some of the issues addressed in individual cases may include behavior problems, tardiness, absenteeism, low achievement, relationship difficulties, family problems and others. The team would review all of the data presented to it, decide whether more information is required and if so decide on a procedure for obtaining the required information. If sufficient information is provided, the team would then discuss the concerns, analyze all of the matters involved, make judgments and propose solutions.

These solutions are prepared as recommended action steps to be executed by designated individuals.

Two major issues related to the work of the support team are the issues of consent and confidentiality. Consent is the written permission from parents to treat children's problems and concerns in a clinical team setting. It is recommended that support teams inform parents through clearly defined means that their child is to be discussed. It may be necessary, depending on the particular issue, to invite parents' input. In some cases however, immediate and swift action may be needed to address a situation, and waiting for written parental permission may be harmful to the student. In such a case, parents must be informed as soon as possible that their child is being discussed and certain actions being recommended. It is important to remember that the empowerment process is a partnership which involves parents.

Confidentiality of information is crucial. Sensitive, personal and private information must be fully protected against unauthorized disclosure. The members of the support team must respect the rights of students to privacy. Every step must be taken to safe-guard student records and protect deliberations concerning student cases.

Interface Between School and Community

Critical to the effectiveness of schools in meeting the psychoeducational needs of children is the school's sensitivity and responsiveness to the social context from which children come and in which the school functions. The social milieu in which children grow and develop has considerable influence on their readiness for school, approach to learning and ability to form trusting relationships (Haynes and Comer, 1990). The social milieu includes friends and family, peer groups and the community but are often perceived as being detached from it. Some school personnel in urban schools see the school as an oasis of learning in an otherwise sterile, decaying and self-destructive environment.

This perception may be nourished by the contrast between the greater affluence and upward mobility in the neighborhoods and communities where many school personnel live compared to the urban blight and poverty in the neighborhoods and communities where they work. When there is a lack of personal investment in a community, there tends to be commensurate lack of commitment and enthusiasm to involve oneself in the life of that community. Thus an itinerant school staff that migrates in and out of a community daily, to and from work, may make bonding between school and community a more difficult proposition than it should be.

The bonding process is complicated by the perceptions of the school held by the community, families and students. The fact that schools are open for several hours during the day and closed for the remaining hours, closed on weekends, and closed all summer and during holidays, may convey a strong negative message that the school's role in the community is severely restricted. Some may see it as a serious breach of partnership, trust, commitment and involvement to padlock the doors of schools for months when constructive activities involving the community, students and their parents could be planned and organized in these schools. Zigler's (1990) ideas of using schools for day care is a twenty-first century idea whose time has come.

The school empowerment process must move beyond the confines of the school building. The definition of school can no longer be constrained by physical space but must become a transcendent concept which incorporates all elements of the student's social milieu with classroom instruction, being only one facet.

Every community has institutions, groups and services which can be coopt into a meaningful partnership for school empowerment. One middle school in New Haven hosts an annual" share night" forum during which service providers in the community ranging from the city family support agencies to private businesses provide information on availability and accessibility of services to parents and school staff. This event is marked by information exchange, ventilation of needs and concerns and joint decisions about action to improve conditions for children and families. The school serves as the focal point of contact and assumes a pivotal role as a full member of the community.

The success realized by some schools and communities in bridging the communication and relationship gap are replicable in other places. However, the process must begin on a psychological level with each individual staff member, parent, community leader and student. The psychological boundaries are often much more difficult to eliminate than the physical ones. For some staff members it may be easier to identify with and commit to the community if they live there, had children who attended school there, shopped and transacted their daily business there; but this is often not the case. Whether or not it should be mandated that this be the case is a radical and controversial thought which could provoke intensive debate and a political firestorm. It nonetheless is a provocative idea, the discussion of which may serve to underscore the seriousness and importance of the school's commitment to the community of which it is a part.

It is contradictory to speak of an empowered school when important aspects of the school's base of power, community groups and agencies, are not incorporated in the school's work. Schools can better serve students when there is home and community reinforcement of the social, moral and academic lessons they impart. One school enlists the support of small business owners in the community to reinforce lessons about entrepreneurship, hard work, responsibility and goal setting.

Another school has established a summer practicum program at a local school of medicine for its high school seniors who are interested in pursuing careers in science and medicine. A third school has developed a relationship with the juvenile probation office in the city to be informed when any student becomes entangled with the law. A probation officer attends some support team meetings at the invitation of the team. He/she educates team members about general legalistic procedures and specifics about a given case, and to discuss possible joint interventions to change the negative life course of an individual student. All of this is done with due respect for the student's and family's privacy rights and with their full consent. School empowerment therefore, reciprocally empowers the community to address students' and families' needs.

Needs Assessment, Monitoring, and Feedback

Essential to the school empowerment process is an established mechanism for assessing school needs, monitoring school operations, programs and activities and for receiving constructive formative feedback regarding the quality of program implementation. The quality of program implementation to a large degree determines the level of success achieved.

Need Assessment

The school management team should be responsible for determining the areas of need in the school and for establishing goals and objectives which address these needs. The information for establishing goals is derived from students, teachers, support staff and parents' input. The input may be provided through responses to items on questionnaires, answers to interview questions or through statements made during team discussions. Other sources of data for needs assessment are school records of aggregated performance data.

A carefully conducted needs assessment is important to the development and implementation of relevant and meaningful school activities. The importance of this was recently demonstrated by a review of some of the goal statements in a school's comprehensive school plan. The plan stated reducing the incidents of vandalism by 50 percent as a goal when there was only one act of vandalism recorded during the previous year.

Needs assessment should be conducted in the major areas of school functioning: 1) academic 2) psychosocial 3) staff development 4) parent involvement 5) community relations. Academic needs may be determined from performance scores on standardized achievement tests, teacher made tests, mastery tests and student portfolios. Psychosocial needs may be assessed through data on behavioral indicators such as suspensions, attendance, fights, drug use, pregnancy rates, and school dropout. Staff development needs are assessed through teacher and staff evaluations, requests and suggestions from teachers and other staff and team observations. Some schools use intra-school peer evaluations as a source of data for staff development needs. Some school districts encourage inter-school peer evaluations at the middle and high school levels where curricula are departmentalized. Parent involvement needs may be assessed by reviewing the level and nature of parents' participation in school activities and by input from school staff, students and parents themselves. Community relations needs may be determined by an examination of school community collaboration and the involvement of community groups and agencies in school programs. Input from parents should be valuable in helping to assess school-community relationship needs.

Monitoring

Following needs assessment, goals and objectives in the five areas should be established and programs and activities designed to meet these goals and objectives by the school management team. The team should be then responsible for tracking and documenting the implementation of activities. The monitoring function includes identifying and documenting the who, when and where of implementation. Who refers to which school staff, students, parents or outside person is involved in given activity. The when concerns the frequency of occurrence, the time of day and the duration of the activity. The where concerns the location of the activity; where in the school or outside of the school the activity takes place.

Monitoring also involves some on-going assessment related to the quality of implementation according to some pre-determined standard. In designing or identifying activities for implementation, it is important for the school management team to establish implementation quality guidelines against which to assess implementation quality. These guidelines would outline not only the who, when and where but also the how of implementation. Thus, a social skills program which includes drug abuse education would be governed by guidelines which indicate who will present the information and who will receive it; how often and on what day and during which period the sessions will be held.

In what classroom, office or other room the sessions will be held and the manner in which the sessions will be conducted.

The how of implementation is often de-emphasized and its importance unrecognized in the monitoring process. The manner in which the drug education program is conducted is very important to its success. Should the program be conducted with small groups, large groups, individuals? Should it be a combination of lecture, discussion and videos or just one or the other? Should it include a counseling component or be strictly educational? All of these are `how' questions which must be determined prior to implementation but which could change based on feedback.

Feedback

Feedback is the process of recycling information gathered during monitoring, back into the implementation process. Without an effective feedback mechanism poor implementation of activities could continue unnoticed and unchecked and increase the likelihood of failure.

Feedback decisions also involve who, when, where and how considerations. It must be determined who would provide information on quality of implementation to whom; with what regularity this information will be provided, for example, daily, weekly, by-weekly, or monthly; where feedback will be provided, that is in staff meetings, team meetings, or in specially convened discussion sessions and how feedback will be given, such as orally or written.

Evaluation and Assessment of Outcomes

The nature of empowerment requires that a much more dynamic and comprehensive evaluation approach be adopted in assessing school effectiveness than has been traditionally the case. This new approach upholds the importance of quantitative experimental methodologies but also recognizes the value of qualitative and ethnographic documentation of school processes and outcomes. The comprehensive and holistic focus of the empowered school is reflected in the totality of its effectiveness measures. The effectiveness of empowered schools is not measured by achievement scores only or by dropout statistics only but is measured by a combination of significant indicators in the five areas previously discussed: 1) academic 2) psychosocial 3) staff development 4) parent participation 5) community relations.

Academic

Academic indicators are the most commonly used to assess a school's effectiveness. They include students' percentile, grade equivalent, normal curve equivalent and stanine scores on standardized achievement tests. These data are usually aggregated for the entire school and also desegregated by grade level, race and gender. There are those who argue against the use of standardized tests and in favor of criterion referenced tests (Wiggins, 1991). State mastery tests, which are criterion referenced are used to assess the attainment of curricular objectives at different grade levels. A newly emerging form of assessment is the student portfolio (1991). This is a highly individualized procedure which involves the documentation of each students' significant work in a file over time, and assessment of student progress through a review of the portfolio at regular intervals.

While academic performance is and always will be an important empowerment indicator, it is not the only indicator nor is it the most important. Academic performance is important only in terms of its relationship to the other four areas.

Psychosocial

The psychosocial indicators include student, teacher, parent and school climate variables. Student variables include self-esteem, achievement motivation, attitudes toward school and learning, behavior, attendance, suspensions and drop-out. Teacher variables include: job satisfaction, morale, efficacy and attitudes. Parent variables include: interest, involvement and satisfaction. School climate variables include: feelings of affiliation and bonding to adults in the school by students; the spirit of cooperation and collaboration that exists; the level and quality of parent participation in school activities, the level of achievement motivation by students and the sense of order and safety that permeates the school.

Staff Development

Staff development indicators include the type and quality of in-service training activities that teachers and other staff receive with regard to instruction, classroom management, team leadership and management and group problem-solving. Staff development is an important empowerment indicator because it is a vehicle for sensitizing teachers to the unique needs of students and parents, strengthening their pedagogical skills, increasing their knowledge base and meeting their own personal and professional needs.

Parent Involvement

Parent involvement indicators include PTA/PTO membership, parent volunteers in the school; parent aides in classrooms; parent teacher conferences; parent support of general school activities and parent representation on the school management team. The significance of parent involvement indicators cannot be overstated. Parents bring a valuable perspective on child development needs to the school. They also serve as link to the broader community.

School/Community Relations

These indicators include: school-business partnerships and sponsorship; practicum and summer student internships with businesses and other community organizations; interactions between schools and community agencies; coordination of services to children and families; public policy decisions affecting educational practice. The ability of schools to effectively educate children is in large measure a function of the support they receive from communities.

Data Sources

The data for measuring these outcomes may be generated through the use of questionnaires, structured interviews and ethnography. Some of the indicators are quantifiable and may be measured and analyzed through rigorous experimental methodology. Other indicators are more qualitative and require a more descriptive analysis.

Summary

The empowerment of schools to address the psychoeducational needs of children is a challenging and complex proposition. School empowerment requires a comprehensive approach which addresses the academic, psychosocial, staff development, parent participation and community relations needs of the school.

There are several key components of the school empowerment enterprise: These are a decision-making apparatus in the school; the prevailing climate in the school; the mechanisms established to address psychosocial issues and student' concerns interface between school and community; monitoring assessment and feedback strategies; and evaluation and assessment of school outcomes.

The empowerment process requires the existence of at least two basic structures: The first and most central is a school management team which plans, organizes, implements and monitors programs and activities to address operationally defined goals and objectives. The second is a psychosocial support team that works to identify and address macro or global school level concerns as well as micro or classroom and individual student issues.

The dynamic and comprehensive nature of the school empowerment process requires that process and outcome evaluations be equally dynamic and comprehensive. Thus, school effectiveness is not measured in terms of academic performance only, but in terms of a combination of significant empowerment indicators. The measurement of these indicators cannot be done only within a rigid scientific experimental design framework but must also include more descriptive, qualitative and ethnographic approaches include more descriptive, qualitative and ethnographic approaches.

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Chapter Three

Implementation of the Yale School Development Program (SDP) In Two Middle Schools: An Ethnographic Study

By

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I. Introduction

In an extensive review of the status of educational research, Evelyn Jacob (1987) discussed the naturalistic: alternatives to "traditional positivistic research" (p.1). She noted that there are many different methodological approaches to qualitative research in education, borrowed from such disciplines as anthropology, sociology and psychology. There is, therefore, no monolithic strategy called qualitative research. The methodologies vary according to the different perspectives of researchers. Our ethnographic studies at School A and School B Middle Schools represented a blending of two of the several approaches discussed by Jacob 1987. The two are: holistic ethnography and ethnography of communication.

Holistic ethnography involves the study of a given community through a description and analysis of values, beliefs and behavior of various parts of a community. An examination is made of how each part contributes to make the community a unified whole. A number of researchers (Spindler, 1982; Ogbu, 1984; Wolcott, 1975, 1984; Peshkin, 1978) have applied holistic ethnography to the study of educational settings. In summarizing the essence of his ethnographic study of an American high school, Peshkin (1978) asserted "the heart of this book is a case study which responds essentially to the question, what is an American high school like?" (p.8). In our ethnographic studies we asked, "What are the salient features of the School Development Program (SDP) at School A and School B Middle Schools and how are these features operationalized?

Ethnography of communication is concerned with interactive patterns and interpersonal relationships among members of the same community or between members of different communities. It focus on the microprocesses of one-to-one interaction and seeks to relate these microprocesses to the larger and more "macro" processes of climate and organization. There is a strong belief that indepth analysis of patterns of interaction indicate much about climate and ethos. The major thrust of ethnography of communication, when applied to schools, was summarized by Mehan (1979). He stated:

> The central recommendation of constitutive studies of the school is that 'objective social facts' like students' intelligence, academic achievement or career paths and routine patterns of behavior, like classroom organizational arrangements are accomplished in the interaction between teachers and students, testers and students, principals and teachers, and so on (p.18).

The related question asked in this study was: How does the School Development Program (SDP) influence the way individuals interact and communicate at School A and School B Middle Schools?

The fact that the ethnographers in the present studies are members of the School Development Program (SDP) research staff has significant importance for the quality and tone of the ethnographic documentation reported here. First, we were able to conduct our research as participant observers without being intrusive or obstructive or without stimulating much of a Hawthorne effect. Even if a Hawthorne effect were induced by our presence this was not necessarily a negative result since we saw ourselves as part of the change process hoping to move the program forward. We were accepted by staff as one of them and were able to observe teachers, administrators, support staff and parents in their natural school settings, as they planned, organized, strategized and implemented policies and procedures to achieve common goals and objectives. Smith (1987) remarked that context sensitivity is critical in ethnographic research. She noted, "What sets qualitative research apart most clearly from other forms of research is the belief that the particular physical, historical, material and social environment in which people find themselves has a great bearing on what they think and how they act. Acts must be interpreted by drawing on those larger contexts." As ethnographers we were familiar with and sensitive to the contexts at both schools.

Second, prior to serving as ethnographers we have had long established professional relationships with key individuals in the SDP process, including the SDP coordinator, school principals and other staff. Since becoming ethnographers these relationships have expanded and solidified as we spent hours each week interacting with, talking to and observing staff, students and parents.

Smith (1987) recognized this as a major positive consideration in conducting ethnographic research. She wrote:

> Most importantly the researcher must personally become situated in the subject's natural setting and study, first hand, over a prolonged time, the object of interest and the various contextual features that influence it. Objectivity in the conventional sense is an illusion; the subject's intentions, beliefs, views of the researcher and interests must be considered.

Third, we know and understand the conceptual framework of the School Development Program (SDP) intimately. We have documented how it works at the elementary school level in two school systems. Thus, we have indepth knowledge of the process. We brought to the task a frame of reference that an external ethnographer, not familiar with the SDP process, could not bring.

In conducting the ethnographic studies, we were careful to maintain as much objectivity as possible notwithstanding Smith's (1987) assertion that "objectivity in the traditional sense is an illusion." (p.9). The procedures we employed were consistent with the "systematic" approach described by Le Compte and Goetz (1982) and Kirk and Miller (1986). Those researchers emphasized the importance of reliability, and replicability of procedures and confirmability of findings. They believe that all information including ethnographic notes, should be available for review by external examiners who may wish to verify data. Some techniques suggested by Miles and Huberman (1984a, 1984b) such as checking for representativeness and looking for researcher effects, were also followed.

II. Methodology

A. Participants

The participants included the principals, assistant principals, SPMT and MHT members, teachers and parents. The membership of the SPMT and MHT differed slightly in each school as discussed in subsequent sections of this report.

B. Data Sources

A standard interview protocol was developed by the author and used during interviews at both schools (see Appendices A-1 and A-2). Some interviews were taped with the consent of the interviewees. In addition, the ethnographer took notes during SPMT and MHT meetings. Notes were cross-referenced. Meeting agendas, comprehensive school plans and other documents were also reviewed.

C. Procedures

The ethnographer conducted a series of interviews with school staff over an extended period of time. Members of the SPMT and MHT groups at each school were interviewed. In both schools, principals and assistant principals served on at least one of these two teams. In addition, at least one teacher from each subject area and/or grade level was randomly selected to be interviewed. Most interviews took place in the schools at designated locations, with a few interviews by phone or at the SDP office. Observations of SPMT and MHT meetings occurred each week at each school. Relevant documents were reviewed.

III. General Description: School Development Program

The SDP model is a system level primary prevention approach that addresses all aspects of a school's operation, not a particular group of individuals, or any particular pre-targeted specific aspect of a school. It is a process model that allows the school to review its aims and methods and to identify problems in a "no fault" atmosphere. It seeks to develop creative ways of dealing with problems, and to implement these ways using the collective good judgement (based on social and behavioral science knowledge) of school officials and parents. Finally, the program monitors initiatives through regularly scheduled meetings of its two key components, the School Planning and Management Team (SPMT) and the Mental Health Team (MHT).

There are three program components or mechanisms and two major program operations. The key program component is the building level representative governance and management body commonly referred to as the School Planning and Management Team. The school Mental Health Team provides child development and relationship knowledge and skill to the work of the governance and management body and its own prescriptive activities. Parents support the program through participation on the governance and management body, and through the support, A Comprehensive School Plan which outlines goals, objectives and strategies is developed by each SPMT. The plan addresses two areas--social climate, and academic--the activities in these areas are based on felt need, research and analysis of school functioning, and student achievement. The Staff Development Program is based on training needs that arise from the school plan. Central office supervisory personnel provides support for staff development activities initiated at the building level. These two key operations are carried out or supervised by the Planning and Management Team. These components and operations will be described in greater detail in the following paragraphs.

Intervention Components or Mechanisms and Functions or Operations

The school governance and management body includes the school principal, a MHT member, and representatives selected by teachers and parents. This group is led by the principal and meets on a regular basis to:

- establish policy guidelines for all aspects of the school program;
- carry out systematic school planning related to social climate, academics, and staff development;
- determine and evaluate resource utilization and coordination and program and implementation;

- monitor program activities;
- work closely with parents to plan an annual school calendar which integrates social, academic, and staff development functions; and
- respond directly to problems and/or opportunities, or delegate this responsibility to other groups or individuals who will report back.

The Mental Health Team is made up of the school social worker, psychologist, special education teacher, counselor, and any other support staff in the building. This group is also led by the school principal. It works in a preventive and prescriptive fashion in providing on-going consultation to teachers and the governance and management body in matters that pertain to child development and behavior. It meets on a weekly basis to:

❍ apply, through its representative on the SPMT, child development and relationship knowledge and skills to the social climate, academic, and staff development programs developed by the governance and management body;

❍ facilitate the many interactions between parents and school staff;

❍ consult with classroom teachers to assist them in responding to students in a way which promotes growth and development;

❍ assist classroom teachers in developing strategies that prevent minor problems from becoming major ones;

❍ set up individualized programs for children with special needs which may involve the utilization of services outside of the school when necessary and possible;

❍ assist all staff members in bridging the gap between special education and regular classroom activities;

❍ provide consultation and training workshops to staff and parents on child development, human relations, and other mental health issues, and;

❍ make recommendations for building level policy changes designed to prevent problems.

The School Development Program views parental involvement as the cornerstone for success in developing a school environment that stimulates the total development of its students. Parents are expected to:

- select their representative to serve on the governance and management team;
- review the school plan developed by the governance and management group (SPMT);
- work with staff in developing and carrying out activities of the parent-teacher general membership group (PTA, PTO) in line with the overall school plan; and
- support the efforts of the school to assist students in their overall development.

The Comprehensive School Plan gives direction and specific focus to the school improvement process. It provides a structured set of activities in the areas of academics, social climate, staff development, and public relations, that enables the governance body to establish priorities, and to approach school improvement in a well coordinated and systematic fashion. It utilizes data (student achievement and behavior, attendance, and the "felt" needs of educators and parents) collected at the school site in order to generate goals and objectives.

Staff Development activities are based on training needs that stem from the school plan. Decisions about staff development are made by the governance and management body with support from central office personnel.

This program:

- organizes periodic workshops (for teachers and parents) based on identified needs and program objectives at the building level;
- creates workshops to provide teachers with those skills proven to be most effective in working with underdeveloped student populations;
- allows the staff to integrate academic, arts, social, and extra-

curricular activities into a unified curriculum; and

- encourage teachers to develop special curriculum units in the skill areas most needed in an underdeveloped student population, (government, business, health and nutrition, and leisure/spiritual time activities are examples of such units).

The Middle School Focus

Early adolescence represents a critical juncture in the development of young people. Social, psychological, cognitive, language, and physical issues and changes in youth at this age constitute a sea of potentially troubled waters that can only be navigated successfully with the aid of understanding adults within the school, home, and community. Our society is not providing assistance needed by many young people outside the school, which, in turn, places a heavy burden on middle schools.

The demographic portrait of today's youth is bleak. One of two children will spend some time in a single parent home by the time that they are in the middle grades. Thirty percent of students are latch-key children, and 15 percent of children today are born out of wedlock. Additionally, the mental health of teenagers has become a major problem.

The second leading cause of death among teenagers, after accidents, is suicide. Alcoholism among teenagers increased 800 percent during the last 10 years. More youth are sexually active at an earlier age. If present trends continue, 30 percent of today's girls will be pregnant by the age of 20. Finally, juveniles make up only 20 percent of the population; yet they account for 43 percent of all serious crimes (murder, rape, robbery). The peak age for committing violent crime is 14.

It is clear that all of our social institutions must begin to act more effectively in an effort to address the problems highlighted in the previous paragraph. After the family, the school probably has the greatest potential for developing programs and strategies that will have a positive impact. This factor has guided the work of the SDP in attempting to create a model that will aid middle schools as they engage in the difficult task of developing and educating students.

While the basic structure and function of the SDP model remains unchanged at the middle school level, the content of team meetings (SPMT and MHT) and the issues that arise within the middle school setting are more complex than at the elementary school. This is due largely to the following factors: differences in the developmental characteristics of middle school versus elementary school children; changes in parental perceptions of school involvement; changes in teacher perceptions of their role and responsibility with regard to students, and; the need for greater coordination of planning and management activities at the middle school as compared to the elementary school. Moreover, students who live in low income, urban areas face the additional stressors associated with city living.

A number of developmental changes serve to complicate the middle school years and to pose a challenge to parents and staff serving young people in this age group. First, there are significant physical changes in boys and girls. Both undergo growth spurts and significant sexual maturation during this period. There is improvement in motor development and coordination. All of these developments promote or limit athletic participation, feelings of attractiveness, a sense of adequacy and so on. A number of concerns and attitudes emerge around these changes and in turn effect psychological development.

The middle school aged youngster has great concerns about his or her ability to work or be effective; their adequacy and identity. Role and gender concerns are brought to the fore by physical changes, academic achievement levels, and their ability to meet social expectations as defined by parents, peers, and school staff. Good personal control or ego functioning is required to successfully negotiate this difficult period and adequate social and moral development are needed as well.

The intensification of peer group influences and the relative decline of parental and family social network influences takes place at a time when young people in this age group are exposed to conditions in the social environment that can interfere with their development; but more importantly, can preclude their ever acquiring the level of development that is possible. Drug and alcohol users, sexual expression, unacceptable and anti-social behavior and other problematic conditions become an apparent part of the environment of young people at this age and to varying degrees, represent behavior options. They need significant help in making choices at this age. Yet there is ambivalence about adult authority of all kinds, including school people, because of their thrust towards individuality, independence, and identity formation. The ambivalence is compounded by the usual organization and management of middle and junior high schools--impersonal, hierarchical, and a content rather than a relationship focus.

In addition, there is a significant cognitive change. There is a transition from concrete to abstract thinking that helps young people consider what might be rather than what is in their environment. This capacity, with adult guidance, can facilitate their problem solving and higher learning skill development. It can aid their social and interactive development. But without adequate interactions with meaningful and important adults, this capacity can make students this age more challenging and rebellious.

All of these conditions lead to the mood swings, unpredictability, emotional stress and a variety of other problems we observe among middle school age young people.

While young people in this group all undergo the transformations discussed earlier in this paper, low income, minority youngsters who live in difficult urban environments often experience additional stress. Urban blight, substandard housing, crime, sometimes an underground economy of drugs, sex and stolen property and the lack of meaningful activities outside of the school place additional burdens on young city dwellers. Youngsters who live in families that suffer from severe social and economic problems are further jeopardized in that it is more difficult for their parents to function well and to promote adequate development under such circumstances.

The middle school years play a major role in preparing students for success in high school and eventually to assume responsible positions as young adults. Yet, as children enter the middle school, many parents retreat from the level of involvement that characterized their presence earlier in the child's education. Without realizing it, parents may be removing a major pillar of support from the foundation that began in the elementary school--at the very time that psychological turmoil related to development is intense. It is critically important for educators and families to work together on behalf of young people at this level of schooling.

Adult authority figures must establish the quality of relationships which permit them to help middle school age children grow along the key developmental pathways, in turn, facilitating academic learning. At the same time, during this age period youngsters must increasingly acquire inner or personal control, direction, motivation and responsibility. This requires some student collaboration with parents and staff. Administrators must work with teachers, support staff, parents, and appropriate representatives from within the community to plan and coordinate activities, and to create meaningful academic and social programs tailored to the needs of emerging adolescents in order to help them through this stormy period of their lives.

Finally, far too many teachers in the middle school have become subject oriented and neglect to build the kinds of relationships with students that aid their growth and development. Given the tremendous pressure on teachers and administrators to raise test scores, it is understandable that some educators have developed tunnel vision regarding this issue. Yet, it is clear that schools and classrooms must address the psycho-social as well as the academic needs of students.

IV. Implementation In Schools A and B

The implementation of the School Development Program in the two middle schools was initiated in September of the 1986-87 school year. The schools were chosen because both have a high concentration of low income, minority students. The social problems that exist among the student populations in the two schools typify those found in the inner-city. Poor school attendance, low academic achievement, unstable home environments, and inappropriate social behavior (among too many students) are expressed concerns of the respective educators at both schools.

School A was opened in September, 1977. It is a well kept brick building with excellent physical facilities. In addition to classrooms, the school contains a large library that also services the needs of its community, an auditorium, a gym, a cafeteria, an Industrial Arts and Home Economics wing, and an outdoor track and field events facility. It is considered to be one of the most attractive and functional middle schools in the greater metropolitan area.

It is located in a section of the city known as the Hill. This neighborhood was the site of much of the rioting that took place in the city during the late sixties. The Black Panther Party used the neighborhood as a base of operations for its organizing efforts in the city during the sixties and seventies. Several other local activist groups also originated in this neighborhood. The Hill is dominated by multi-family dwellings (many owned by absentee landlords) with an ethnic population that is predominantly Black Hispanic. Recent efforts by the city administration have resulted in the construction of affordable single family dwellings that have the potential for changing the physical appearance of the neighborhood and encouraging local residents to take advantage of the opportunity for home ownership. Such changes have resulted in a more positive outlook on the part of many Hill residents regarding the future of their neighborhood.

Despite some of the progressive changes in this neighborhood, there are still problems that negatively impact on its residents, particularly its children. The Mayor's Task Force on Hunger recently discovered that approximately 25 percent of the school aged children in the Hill were not receiving minimum daily nutrition. Additionally, the crime rate in this area is among the highest in New Haven. Drug sales are done openly on many street corners despite the efforts of neighborhood groups to eliminate this problem. The school stands as an oasis of hope for the children of this neighborhood.

The school has a population of approximately 800 students. Ninety-two percent of its population is below the poverty level. Fifty-three percent of the student population is Black, while 45 percent are Hispanics. Virtually, all of the Hispanics are Puerto Rican migrants and 16 percent of these students are enrolled in the school's bilingual program. The school serves grades five through eight.

It has a staff which is approximately 40 percent White; 40 percent Black, and 20 percent Hispanic. A core of dedicated, veteran teachers serves as the leadership group within the school. A good staff has allowed the school to maintain its reputation as a school that is sensitive to student needs. There is low staff turnover at School A within the faculty. However, the school had 3 different principals during its first 8 years of operation.

In addition to the core instructional program a diversified staff allows the school to offer a variety of academic and social programs to its students. After school tutorials, library services, chorus, band, drama, photography, and athletics are examples of activities offered by the school. The school also has a full staff of mental health professionals and other support staff (see Figure 2) that provide much needed social services to its students.

The principal was in his third year as the principal of this middle school. He is a strong, assertive administrator who has expressed a concern for maintaining a safe and orderly school as well as for holding staff accountable for providing a good education and appropriate services to students. He is a task oriented, traditional administrator. The SDP approach is relatively new to him, but he has made significant progress in establishing the program in the school.

School B sits on the shores of a picturesque pond in an area that was previously considered for use by the city as park land. It is located in the Newhallville section of the city. Like School A, the school was opened in September of the 1977-78 school year. It is a totally concrete, open space, structure that has been describe by its former principal as "educationally dysfunctional and hazardous to the health of its staff and students." This school contains a large library/media center, an all purpose room which serves as an auditorium, a gym, a cafeteria, an indoor track, and an outdoor field events facility. It was constructed partially with monies from a federal grant for experimental architecture.

The community in which the school is located is one of the city's seven neighborhoods. It is a neighborhood of stark contrasts. While there are pockets of poverty in this area, there still exists a number of middle class Black families who were not a part of the exodus to surrounding suburbs that took place in the mid seventies. It is a predominantly Black area populated by first and second generation Southern migrants from Alabama, Georgia, South Carolina.

Figure 2

School A School Staffing

Faculty

Grade 5	2 teachers	Chapter I Reading	5 teachers
Grade 6	8 teachers	Chapters I Math	1 teacher
Grade 7	7 teachers	Art	2 teachers
Grade 8	7 teachers	Music	3 teachers
Bi-lingual	6 teachers	Physical Education	2 teachers
Special Education	7 teachers	Industrial Arts	2 teachers
In School Suspension		Home Economics	2 teachers
Coordinator	1 teacher	Foreign Language	1 teacher

Support Staff

Librarian	1	Clerical	3
Psychologist	2	Assistant Principals	2
Social Worker	1	Principal	1
Counselors	3	School Nurse	1
Para Professiona	13		
School Security	1.5		

North Carolina, and Virginia. Like the Hill section there is a considerable crime problem in this section of the city. Residents are concerned about the open sale of drugs within the community and the fact that many of the street dealers are teenagers. Gun fights, gang activity, and burglaries are other concerns of Newhallville residents.

The schools population is approximately 560 students. Ninety-nine percent of them are Black, and of this group approximately 80 percent are at or below the poverty level. Serving grades five through eight, the school is seen as a vital resource within the community by neighborhood residents. The staff is an approximate 65/35 mixture of Blacks and Whites respectively. The school has experienced a great deal of turnover during the past three years. Many of its outstanding teachers were promoted to administrative positions within the school system.

Staffing at the school (see Figure 3) is sufficiently diversified to allow the school to offer a variety of activities to its students that support its instructional program. They include after school tutoring, band, chorus, athletics, debating, field trips, and a boys and girls club initiated by the physical education staff. Staff members at the school have proven to be caring, sensitive, and dedicated to the betterment of the school's students.

Figure 3

School B School Staffing

Faculty

Grade 5	6 teachers	Chapter I Reading	4 teachers
Grade 6	4 teachers	Chapter I Math	1 teacher
Grade 7	6 teachers	Art	1 teacher
Grade 8	5 teachers	Music	2 teachers
Special Education	9 teachers	Physical Education	2 teachers
In School Suspension	1 teacher	Industrial Arts	1 teacher
Curriculum specialist	1 teacher	Home Economics	1 teacher
		Foreign Language	1 teacher

Support Staff

Librarian	1	Clerical	3
Psychologist	1 @ 4 days/wk	Assistant principals	2
Social Worker	1	Principal	1
Counselors	2	School Nurse	1 @ 4 days/wk
Para professionals	8	Pediatrician	1 (part-time)
Security Aide	1	Health clinic	
		Case Worker	1 (part-time)

School Development Program: Phase I

Phase I of the program consisted of an initial orientation to the staffs of the two schools regarding the need for the SDP model in schools, and a discussion of its structure, functions, and operations. The orientation was handled by Dr. Comer. Establishing the key components of the model followed. The School Development Coordinator (Edward

Joyner) worked with the principal and the school staffs to solicit representation for the SPMT, to develop a calendar of MHT meetings, and to begin work on the school plan.

The successful implementation of the SDP program within a particular school depends on (1) convincing the principal, school staff, and parents that the program will achieve its stated outcomes, (2) developing within the staff an understanding of the model, its key components, structures and operations, and (3) gaining a commitment from the principal to lead the process in a collaborative, no fault manner. Much of the responsibility for establishing these pre-conditions for success rests on the shoulders of the facilitators.

Our work with schools has shown that it is important in the start up phase of the program for the facilitator and principal to sit down and identify potential problems and lay the ground rules for the facilitator - principal relationship, and to develop a clear understanding regarding their roles in the school improvement process. They should also agree to regularly scheduled feed back sessions to keep the program on target and to identify and resolve any problems. Feedback should be specific, descriptive, close to the actual behavior as possible, and based as much as possible on information whose accuracy can be reasonably documented. It is important for these key players, i.e. the principal and facilitator, to "model" appropriate behaviors in team meetings for other members of the group(s).

Summary guidelines for the principal-facilitator relationship during the initial stages of program implementation should then include the following:

1. Clearly established roles and ground rules must be discussed and agreed to in the initiation stage of the SDP;

2. The team leader and facilitator must meet to discuss roles and ground rules when either of the two feels uncomfortable;

3. Both individuals must model the behavior that they expect from team members in their interactions;

4. They should observe the feedback rules in their communication;

5. Both individuals should make maximum effort to keep their personalities out of their reactions to feedback and constructive criticism; and

6. The facilitator must be careful to pose questions for the group, rather than to find answers and solutions for them. His ultimate aim should be to assist the group in becoming an autonomous cooperative of individuals who can identify their own problems, develop their own solutions, and create their own process for successful problem resolution.

The Program Goals that guided Phase I consisted of the following:

1. The development of a representative School Planning and Management Team (SPMT) that would encourage participation by the entire school staff and parents in the key decisions regarding intra-school policy and programming.
2. The development of a Mental Health Team (MHT) that would utilize the input of mental health professionals, school administrators, and teachers in preventing troublesome behavior from occurring within the school, that would prescribe solutions for students experiencing difficulty, and that would work closely with the SPMT to continually improve school climate.
3. The establishment of a productive working relationship between the SPMT and MHT to ensure that knowledge of child growth and development, human relations, and mental health principals will guide all school wide decision-making and program implementation.
4. The development of a Comprehensive School Plan that would address the academic, curriculum, social, communications, and staff development needs of the school.
5. The direct involvement of parents in planning and participating in school based activities (academic, social) with the aim of improving school-parent relations and providing support for child growth and development.

Program Implementation Status: Phase I

In September of 1986 the SDP project hired two ethnographers to observe the program in action in order to describe the process and flow of the implementation. The ethnographers read program documents, interviewed key participants, observed meetings and retreats at both middle schools, and interviewed faculty and administrators in the Fall and Winter of the 1986-87 school year regarding the progress and impact of the program in the respective schools. Information gathered by the ethnographers was used to write this component of the report.

General comments suggested that faculty and administrators in both schools were pleased with progress that they made in the first year of implementation of the SPMT and MHT. They described themselves as more focused, more participatory, and more satisfied with their ability to address school wide issues. For example, one administrator who had mixed feelings about the necessity of the program at his school stated:

> "I like the Comer process much better than I did in the Fall ... we're able to do a lot of things through the process ... I think it's by making sure that everything is organized, because you hate to go before a group of people [members of the teams] and not be together ... I used to be a person who thought that if it wasn't done my way, it couldn't be done, and if I couldn't do it all, it couldn't be done. But with the help of the SPMT, and the MHT, you find that you're sharing the problems or you get a chance to share the good, and because of that you would finally have more people involved ... so that everybody participates, and everybody has a part of the decision making process."

This feeling was shared by administrators at both schools. Additionally, faculty who served on the various teams at both schools were encouraged by the extent to which they were involved in school wide planning and decision making.

One faculty member who was skeptical about the utility of the program in early Fall, and who expressed reservations about her principal's ability to lead the implementation of the program, showed considerable optimism four months later: "I'm encouraged by what I see, when I feel that those who are in power and control demonstrate an interest, or what I would call quality performance ... I'm encouraged and ready to acknowledge it ... I'm encouraged by the attitude."

No example has been found of teachers or administrators being disheartened or antagonistic to the program. Teachers and administrators also felt satisfied with the progress of their schools in implementing this phase of the model.

According to school personnel, principals, as internal managers, and the facilitator as an external resource, have been key to the changes that have improved the functioning of both teams. Principals have encouraged greater participation than in previous years and the facilitator has been described as keeping the project "on track" and providing helpful feedback on the process of team meetings. His absence from meetings was viewed as unfortunate and teams, for the most part, did not feel competent to proceed without some oversight.

A minor concern expressed in the beginning was that some faculty sensed tension in their principals which was not apparent when the facilitator was absent. This does not appear to be the case at the writing of this report. Teachers and administrators have described the facilitator's presence as useful. It is felt that the presence of the facilitator can remind participants of the way they are supposed to interact--dealing with issues, staying away from personal remarks and presence of the facilitator will likely help team members internalize these modes of operating to the point that such influence is no longer needed.

Significant progress in program implementation has been made, in both schools, although the areas of success differ. Circumstances in both schools account for these differences.

School B's MHT is functioning well in terms of problem prevention, problem identification, and problem solving. They have essentially dealt with recommending individualized prescriptions for students experiencing difficulty, modifying broader programs within the school to prevent children from experiencing problems, working with teachers and parents to address student problems, and better utilization of central office support and community resources. The team has also provided support to teachers who have experienced difficulty in working with special needs students, and it has provided a support system for introducing new teachers to the building. It has functioned so effectively that the Yale Child Study Center has used it as a model in training other school districts.

The principal at School B made a conscious decision to proceed with the development of the SPMT at a slower pace than the MHT. There were a number of factors that contributed to this decision. He did not receive his appointment to the school until September 1, 1986. For the first three and one half months of school he was without the services of one of his two assistant principals, and he also had four teacher vacancies. He had to share the duties of that assistant as well as carry out his responsibilities as the building leader. These factors created diversions that made it difficult for him to lead a governance and management group. The new principal felt that he needed time to get to know his students, parents, and teachers. He also felt that he needed to do his own assessment of the school so that he would have a first hand knowledge base when issues were raised in team meetings. He felt that he would be comfortable in leading a governance and management group only after he had gotten himself established in the school. He bought time by meeting monthly with the SPMT rather than bi-weekly.

Once he became more familiar with the staff and community, School B's principal established a calendar of bi-weekly meetings of the SPMT that were in effect for the remainder of the school year. The staff received the component well and generally expressed positive comments regarding its potential for improving all aspects of the school's operation.

Qualitatively, the management group functioned well. Using a one day retreat they analyzed student achievement data and their own "felt needs" to develop a Comprehensive School Plan. The plan included academic, social, public relations, and staff development goals. It was formulated with the input of parent, teacher, and support staff representation. After general goals and objectives were generated at the retreat, sub-committees within the school were appointed to develop action plans for each of the four general areas (academic, social, public relation, and staff development). The draft of the plan was presented during a general faculty meeting for review and input. The principal also submitted the plan to the parent group for revisions and/or modifications. The final draft was sent back to the SPMT for approval. Each staff member received a copy of the final plan, and roles and responsibilities were discussed in a general staff meeting in order to insure that individuals within the school were aware of how they fit in the implementation process.

In addition to developing the school plan, School B's SPMT coordinated the school's first Share Night. Share Night was an event designed to give parents an insight into the curricular and co-curricular offerings of the school, and to bring teachers, parents, and students together in a non-threatening way. This particular activity received widespread media coverage (television, radio and newspapers) and was attended by 500 parents and students. The program included art displays, student produced videos designed to heighten awareness of drug abuse and teen pregnancy, anti-drug raps, poetry, plays, choral and instrumental music, and food prepared by the Home Economic students. Student work was displayed throughout the building.

Another activity that involved administrators, teachers, students, and parents at School B was the trip to New York (April, 1987) to visit the Jackie Robinson Exhibit at the New York Museum of History. Teachers and parents worked with a cross section of students from the school to teach them (through role playing and simulations) proper decorum in a museum, how to greet Mrs. Rachel Robinson, the widow of Jackie Robinson, and to emphasize the general behaviors that would be appropriate for such a trip. Parents and teachers acted as chaperons, and the trip ended on a high note when the students were praised for their exemplary behavior immediately after the museum visit during a luncheon at a restaurant in Darien, Connecticut. More activities of this nature will be a part of the second phase of the program. It is clear that such activities bring students, parents, and educators together in meaningful ways that promote trust, enhance communication, build good relationships between the school and home, and stimulate child growth and development.

The MHT at School A primarily focused on providing support for teachers who were experiencing difficulty with special needs students, and on developing prescriptions for at risk students through parental collaboration and the utilization of community resources. The group met weekly to discuss new student referrals to the team, and to monitor prescriptions generated by the group for students discussed in previous meetings. Though largely student oriented in it's earlier stages, the group has now begun to be more global in it's outlook by beginning to take a look at how process, policies, and programs within the school affect student development.

The group has gotten a commitment from the Assistant Superintendent of the school system to facilitate the development of a program for bilingual students who are at risk, and it has initiated a request (along with school B's MHT) to start a series of meetings that will improve the coordination of effort and communication between school and community groups that provide services to children.

The SPMT at School A held a retreat at the beginning of the school year and developed a year long calendar of meeting dates. It has met bi-weekly and even scheduled extra call meetings to finish business discussed in the regularly scheduled meetings. It has a number of standing sub-committees (academic, social, staff development, public relations) and uses these committees and regular SPMT members to generate agenda items for meetings. Virtually every activity within the school is screened by the group before obtaining approval. A social calendar of school wide events is done monthly and distributed to staff. Events are also displayed on a central bulletin board in the school.

School A's SPMT planned a very successful tenth anniversary celebration that took place during the last week of school. The planning and coordination for this activity involved parents, staff members and students. The team coordinated fund raising to pay for plane fare and lodging for Mrs. [ ] , the widow of the man for whom the school is named, in order for her to be the graduation speaker for the class of 87. Students prepared banners in their art classes, speeches in English, did research about the family during library time, and prepared a meal and reception in her honor where they served as hosts and hostesses. Her presence brought the entire community together and the students learned a great deal about how to plan such an activity through cooperative efforts.

The governance and management groups of both schools have collaborated on a project that will allow them to monitor the basic skills component of their instructional delivery system, and to improve the performance of their students on standardized, norm referenced tests. The facilitator coordinated a series of meetings with representatives from each school's SPMT. In these meetings participants discussed how they could develop a basic skills test for each grade level l (using a standardized format) that would reflect the skills emphasized in the system's curriculum, the Connecticut State Mastery Test, and those found on typical standardized tests. The tests would be administered and scored and the results would be fed back to teachers and students so that a prescription could be developed to improve student performance. To do such a major undertaking both schools had to acquire an optical scanner and thousands of answer sheets. Their SPMT groups worked with the principals of the two schools to acquire the hardware necessary to administer the testing program. Since the acquisition of basic skills is the key to later academic success among students, this program intervention (developed through the SPMT process) should have a major impact in creating the academic press that is critical in stimulating schoolwide achievement.

Some major steps were taken during the first phase to implement the School Development Program in the two schools. There is still much work to be done to increase the level of parent participation on the SPMT. Although parents did participate in developing the school plan during the retreats, parent attendance at SPMT meetings was sporadic. On the other hand, each school has a Parent-Teacher Organization (PTO) and both principals sought to keep parents informed of SPMT activities using the PTO, yet the SDP model calls for direct participation of parents on the governance and management group. This issue has been raised with groups and they have stated that they will intensify efforts to get parent representatives to serve on the SPMT.

Other issues identified during the first phase were the lack of skill and training on the part of many team members and leaders in the areas of group dynamics, team building, action research, planning, program writing, and formative and summative evaluation of MHT and/or SPMT initiatives. For example, while one of the principals was very good at maintaining a task oriented meeting, the other was quite adept at running meetings that were relationship oriented. A merger of these two skills would prove beneficial to both administrators. Additionally, team members could benefit from training in group process skills after which they could receive coaching and feedback from the facilities.

Thus, at the end of the first phase of implementation the model is in place in both schools. School A has established a balanced, working relationship between the SPMT and MHT. While School B's SPMT is not as well developed as School A's, it has a model

MHT. Neither school has successfully integrated the parents program, and much work must be done in this area. However, both schools have developed school plans with direct participation of parents. School retreats have made this possible, and staff and parents have expressed a feeling of renewed energy and commitment after these retreats.

Additional Accomplishments

The success of the SDP at the middle school level along with Dr. James P. Comer's previous work in New Haven's elementary schools has attracted a great deal of national attention. Several school systems have sent building level and central office staff to visit Schools A and B and to observe their mental health teams and their governance and management teams in action.

Summary

Virtually all of the SDP components are in place in the two schools. It is important to strengthen the various components so that their presence can be felt in the classroom, and can be seen in the everyday working relationships between parents, school staff, students, and child service providers who work with the school system. The program continues to emphasize the following:

1. The solicitation of greater and more direct involvement of parents in planning and participating in school based activities with the aim of improving school-parent relations and providing support for child growth and development.
2. Training that will enhance group process skills, planning and decision making, and team building on the part of the principal and staff members and parents who serve on the MHT and the SPMT.
3. Opportunities in the form of retreats for the school to reflect on its needs, programs, relationships, and operations in an effort to improve the quality of school life for students, staff, and parents.

4. Prevention of problem behaviors related to the developmental challenges faced by early adolescents who also live in families and communities that may not adequately prepare them for participation in mainstream society. Specific programs and activities will be designed to teach students the skills (both academic and social) necessary for them to become productive and responsible citizens and family members through simulated and real world activities. The design of these activities will be based on the pre-test activities such as the visit to the Jackie Robinson Exhibit and the visit of Mrs. [ ] described above.

Parental support for school goals and activities, and cooperation from parents in directing the behavior of students along the key developmental pathways, are fundamental prerequisites for the success of our program. Yet, schools have not traditionally, in a planned comprehensive way, sought this level of involvement from parents. Our experience indicates that this process can be tedious - and sometimes painful. Consequently, we must focus a great deal of our energy on developing ways to bring parents and educators together (more often) on behalf of students, and we must also continue to create a climate that will allow parents and educators to become true partners in the overall education of students. This goal must be communicated to the governance and management group of both schools, and it must be supported by this group as well as key officials in the school system (Superintendent, central office personnel).

It has been noted, in some instances, that there is a need to work with the representatives of the SPMT and MHT in the areas of group process skills, planning, problem solving, and team building. This is especially critical since the group membership may change from year to year. We are therefore planning more training in the second phase of implementation in these areas. Particularly, we are concerned with developing a summer leadership institute for administrators that will hopefully enhance their skills in leading the School Development Program and allow them to develop skills that they can transfer to others.

Since regularly scheduled governance and management meetings serve the purpose of addressing the day to day operations of the school, developing and monitoring the school plan, and generating and updating the school social calendar, it becomes necessary to establish additional opportunities for the school to reflect on its needs, programs, relationships, and operations. Generally, such an endeavor takes more time than the standard one hour SPMT meeting. Retreats have proven to be fruitful for the team(s) to do the vigorous self-examination necessary for team and school growth and for an increased understanding of the SDP model. They also generate information to keep the project on target, improve communication, and build greater cooperation and trust within the school community.

Finally, we have begun to develop specific programs and activities designed to prevent troublesome behavior by teaching students the social and academic behaviors needed for them to become responsible and productive as students and later as adults. A high degree of cooperation is needed to carry out this aspect of the project at the school and system level. Opportunities for planning, and support for the specific enabling activities must also be made available if success is to be achieved.

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Chapter Four

Evaluating School Development

By

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Introduction

Program evaluation is an important aspect of program development. Windley (1977) noted that:

> "The evaluation process identifies clear and specific criteria or goals for project success. It collects data systematically, compares it with established criteria, and draws conclusions about project effectiveness. Evaluation research differs from other types of research mainly in intent - the purpose for which it is done. Where knowledge generated by basic research is left to natural processes of dissemination and application, evaluation research begins with the use in mind." (p.118)

Windley (1977) further emphasized the importance of identifying and specifying clearly operationalized goals and objectives as a basis for meaningful assessment. He noted:

> "The most difficult part of any evaluation research is the identification of specific project goals-the purposes for which program intervention was initiated. Likewise, failure to establish clear, specific and measurable objectives is the greatest weakness in most intervention projects (Rossi & Williams, 1972; Weiss, 1972). Kogan and Shein (1966) argue that the extent to which the goals of an intervention program are specific and circumscribed, the problem of determining and specifying criteria designed to select effectiveness of the program becomes more capable of solution. Conversely, the more vaguely phrased the objectives of a program, the more difficult it is to obtain commitment to accept the findings of the evaluation effort." (p.118)

Evaluation of educational programs and school-based interventions together constitute a special kind of program evaluation focusing on the extent to which students' needs are addressed by educational innovations. The data which form the basis for the evaluation are collected on at least three levels: district, school and classroom. The data-gathering process involves all of the key stakeholders in the educational process as providers of data and in some cases as data gatherers: classroom teachers, administrators, other staff members, parents and the children themselves. The data thus generated and collected enable individuals to make informed judgements about: 1) program needs (the goal); 2) program quality (the process); and 3) program effectiveness (the outcomes).

Models of Educational Evaluation

Many concepts and definitions of educational evaluation research may be extrapolated from the literature. These include:

1. Evaluation is essentially the process of determining to what extent the educational objectives are actually realized (Tyler, 1950. p.69).
2. Evaluation is a process of delineating, obtaining, and providing useful information for judging and implementing decision alternatives (Cronbach, 1963).
3. Evaluation is the process of comparing a profile of demonstrated needs and actual effects, whether intended or unintended (Scriven, 1974).
4. Evaluation is a process of identifying critical guideposts and critically describing and appraising and entity through connoisseurship and criticism (Guba, 1978).
5. Evaluation is a process for judging the concerns and issues of stakeholding audiences as a function of the value held by relevant audiences (Stake, 1975).
6. Evaluation is a process for judging the merit (intrinsic) and work (extrinsic) of an entity, based on professional and audience values/standards (Guba, 1980).
7. Evaluation is a systematic application of social research procedures in assessing the conceptualization and design, implementation and utility of social intervention (Rossi & Freeman, 1982. p. 20).

A cursory look at this partial list of definitions of evaluation research suggests considerable overlap. However, these definitions allow for a wide range of assumptions about evaluation either as a normative or descriptive process. These assumptions influence the evaluation goals, methods, and procedures and employ metaphors that guide thinking about the nature of education.

Each of the above definitions stimulated the development of different models of evaluation. It seems to us that these models do allow for adequate assessment of the SDP process. In this context our task is twofold: First, to develop a topology that very clearly describes the strengths and weaknesses of contemporary evaluation models. Second, to develop a model of evaluation that highlights the forms and functions of the components of the Comer SDP process.

To accomplish the first task, the key concepts (highlighted below with definitions following) will be used to track and identify categories of models. The categories elaborate on the conceptual distinctions among the models.

Objective-oriented (Tylerian)

In response to the basic weakness of educational evaluation models commonly used in the 1950's, Ralph Tyler popularized a model of evaluation centered on objectives: Compared to the pupil/individual-centered and measurement-driven procedures that were popular at the time, Tyler's approach was a distinct advance over them. The most significant contribution of Tylerian models was a call for evaluation approaches that examined school programs and curriculum, areas heretofore neglected by evaluators.

Objective-orientation became the key concept of Tylerian models. The designs were preordained, explicit, experimental and quasi-experimental. These designs emphasized: 1) statement of goals, 2) use of objective tests, 3) standards held by program personnel, and 4) research-type reports. Pre-post-test comparison of variables constituted the methods of evaluation.

Decision-oriented (Context-Input-Process-Product Model (CIPPM)

Dan Stufflebeam proposed a solution based on four decision types generated by crossing an end-means dimension with an intended-actual dimension. They are as follows:

1)Intended ends, goals or objectives, which are serviced by the context of evaluation, which assess a program's needs, problems, threats and opportunities;

2)Intended means, processes or procedures, which are derived by a series of decisions;

3)Actual means, which are determined through implementing decision, which are in turn serviced by the process evaluation; and

4)Actual ends, which lead to a decision to terminate, adjust or modify. (Stufflebeam et al, 1971).

These designs are often preordained and explicit. Methods vary considerably with the type of decision being made. These methods include: portfolios, needs assessments, case studies, advocate teams and quasi-experiments.

Effects-oriented

Effects-oriented models examine and compare the intended and actual effects of educational programs and, as in the previous category, designs are preordained and explicit.

Basic method compares effects with needs.

Audience-oriented (Responsive evaluation)

Responsive evaluation models are quite distinct from other types of models: They base evaluation on a consideration of what people do naturally. As these models are dependent on observation and reaction, are too likely to raise more questions, they are subjective and are therefore poorly suited to formal contracts.

Such a design is emergent and responsive to the needs, concerns, and issues important to stakeholding audiences, and its method is naturalistic. Proponents of the naturalistic inquiry method put forth the notion that "one does not prepare the system, but look for patterns, structures, significant events, as they appear under conditions not controlled or modified by investigators, who is himself now a system of interest." (Guba and Lincoln, 1982; Lincoln and Guba, 1986).

School Development Program's Approach

A key feature of the SDP is that it is a data-driven school improvement process. This means that consistent, careful and clear documentation of program process and outcomes is important. At the same time, we maintain that SDP documentation efforts should always produce Smart, Decent and Purposeful (SDP) information. Smart information gives us new insights, Decent information is honest and truthful, and Purposeful information gives us direction. The documentation is regarded as a collaborative effort involving staff in SDP districts and schools with support of the SDP staff at the Yale Child Study Center.

The purpose of documentation is twofold: 1) to provide formative process data to improve and strengthen program implementation; and 2) to provide measures of program impact on salient outcome variables, including those identified in Comprehensive School Plan goal statements.

These guidelines and procedures are designed to offer general directions for conducting, monitoring and assessment activities within the SDP framework. We recognize that each school district and each school within a district may have unique needs, contextual conditions and goals. These guidelines are sensitive to variability within and between districts and are flexible.

However, we recommend that where possible, the guidelines be adhered to, the procedures followed, and the suggested instruments be used to provide the implementors of the process with a body of information that is critical to successful implementation of the Program.

The SDP Principles Applied to Documentation

The three SDP guiding principles: "no fault," consensus and collaboration apply as much to documentation as they do to implementation.

"No Fault"

There is collective responsibility for identifying data needs and gathering the necessary information to meet these needs. The Comprehensive School Plan process at the school level allows everyone in the school, through representatives, to identify needed data and ways to collect them. Instead of holding one person liable when needed information does not exist, there is shared accountability. At the district level, it is the system itself which is accountable, since the identification and acquisition of important information is a system responsibility.

Consensus

It is important that decisions about what data to collect and how to collect them be made through the consensus process. This process involves the brain-storming of ideas, the considerations of pluses and minuses of each idea, and the general agreement to try one or two ideas first, and then to try other ideas as alternatives. At the school level, working through the Comprehensive School Plan as a guide, the school community reaches consensus on the what and how of documentation. This process requires an informed school community, a mechanism for optimum input by constituents and a procedure for feedback and review of decisions on documentation. At the district level, there should be a committee or team approach to documentation involving the SDP facilitator, research and evaluation specialist, as well as other key program coordinators and staff.

Collaboration

As with implementation, the best approach to documentation must be built upon a commitment to the principles of true collaboration and inclusion. At the school level, staff, parents and students serve as sources of information, and participate in the documentation process. At the district level, through the committee or team approach mentioned above, all key personnel in various departments work together to produce the needed data in an integrated way.

Program Evaluation as an SDP Operation

A complete and successful implementation of the SDP requires the involvement of these three operations: 1) the development of a Comprehensive School Plan, 2) staff development, and 3) monitoring and assessment (program evaluation). Interdependent and interrelated, these three operations help delineate Comprehensive School Plan goals and objectives with regard to academics, social climate and community relations, and include specific programmatic activities designed to achieve these goals and objectives. Staff development activities are designed and implemented to afford members of the staff the opportunity to address the goals and objectives outlined in the Comprehensive School Plan, by giving them the information and skills they need to become effective implementors of the planned activities. Monitoring and assessment activities are conducted to provide data on how well the planned activities, including staff development activities, are being implemented and whether or not objectives are being met. While monitoring and assessment activities are coordinated through the School Planning and Management Team (SPMT), the Mental Health Team (MHT) provides significant input as well.

The monitoring and assessment operation within the SDP framework provides the basis for program evaluation, which we prefer to call program documentation. Besides being a more inclusive term, program documentation takes the following into account: 1) the context of the situation, 2) the nature and quality of the process, 3) the feelings, perceptions and ideas of staff, students and parents, 4) the planned and unplanned outcomes of program implementation and program outcomes.

Stages of SDP Documentation

There are three stages in SDP documentation. These stages correspond to three major types of assessments:

1) Needs Assessment (Context Analysis)
2) Formative Assessment (Process Analysis)
3) Summative Assessment (Outcome Analysis)

1) Needs Assessment (Context Analysis)

In the needs assessment (context analysis) stage of program documentation, measures are taken of existing conditions, current performance indicators and present needs. These measures serve as baselines against which to compare later measures, after new initiatives and activities have been in place for some time.

Case Example:

An example of needs assessment is the case of School A where absenteeism rates were high, student achievement was low and the general climate of the school was low to only moderately positive. School A's SPMT surveyed teachers, parents, and students to determine the underlying problems, as well as to solicit suggestions for improvement. The SPMT discovered that: 1) the same small group of children were chronically absent and accounted for most of the absences recorded, 2) many children did not do homework assignments and were falling behind in class as a result, and 3) parents and teachers felt disconnected from each other. In order to address these issues, School A's SPMT developed a Comprehensive School. One of their goals was to reduce the number of absences among the chronically absent group of students by at least 50%. This was to be done by instituting closer contacts with the families of these children, and by providing needed family support through interfacing with community agencies. Another goal was to increase by 25% the number of children scoring at the 50th percentile on the Metropolitan

Achievement Test through a program of after-school tutorials, and closer homework monitoring with support from parents. The third goal was to increase the number of parent volunteers in the school by 100%, since at the time only three parents volunteered regularly. This was to be accomplished through an intensive outreach effort in which parents would be contacted and invited into the school and then be trained to become volunteers.

The baseline measures here were: 1) number of student absences, 2) number of students scoring at or above the 50th percentile on the Metropolitan Achievement Test, 3) the number of parent volunteers in the school. These baseline data were to serve as the basis for measuring the degree of success in reducing student absenteeism, improving student achievement and increasing parent volunteerism in the school.

SDP Baseline Measures and Sources of Data

In the SDP, baseline measures used have included: the SDP data base form which requests: 1) demographic data, 2) achievement data, and 3) attendance, retention and referral data. Sources of data during this stage include staff, parents, students and archival data. The questions we seek to answer are these:

- Where are we now?
- Where should we be or where do we want to be?
- How do we get from where we are to where we should be?

2) Formative Assessment (Process Analysis)

In the formative assessment (process analysis) stage of program documentation, measures are taken to determine how well the program is working. These implementation-quality measures are taken at regular intervals, such as quarterly, throughout the program year.

Case Example:

In the example of School A, both interviews with students, tutors, staff and parents, as well as direct observation, provided measures of how well the after-school tutorial program was working. The activities to reduce chronic absenteeism among the small group of students were monitored by keeping consistent records of contacts with families, and of the interventions by community agencies with these families. The SPMT carefully monitored the efforts to involve parents as volunteers, and regularly reviewed the various outreach activities designed to get parents involved. For example, after several months of telephone contacts and networking through other parents, the SPMT agreed to hold a monthly even--a potluck, a children's performance -- to which parents would be invited. The SPMT also began to work more closely with a neighborhood service center where many parents received basic health and social services.

Overall SDP Process Analysis

Formative assessment (process analysis) of the overall SDP process involves careful monitoring of how well the three mechanisms -- the SPMT, the MHT and the Parents' Program -- are working; the extent to which the three operations (Comprehensive School Plan, staff development and monitoring and assessment) are appropriately used; and the degree to which the three SDP guiding principles ("no fault," consensus and collaboration) are followed.

SDP Process Measures and Sources of Data

We have developed three instruments to assist with formative assessment (process analysis). These are: 1) the SDP implementation checklist (SIC), a telephone interview protocol used by SDP staff at the Yale Child Study Center, in checking on implementation progress; 2) the SDP Quality Standards Process Documentation Inventory (SDPQSPDI), a diagnostic measure of implementation to be completed two times per year by school staff. (This instrument diagnoses implementation in each of the four stages of the SDP life cycle: the orientation, transitional stage, operational, integration stages); 3) the School Management Questionnaire (SMQ), administered at the end of each year as a cumulative measure of implementation quality with which outcomes may be correlated. These three instruments are discussed further in the instrumentation section.

Sources of data for the formative assessment include: members of the SPMT and MHT, general staff, parents and students. Minutes of meetings and other records may be used. The questions addressed during this stage are:

- What are we doing? (process check)
- Why are we doing it? (review of goal)
- For whom are we doing it? (review of target group)
- How well are we doing? (quality check)

This stage is incomplete unless the information generated by these questions is fed back into the process to make adjustments where necessary to strengthen program implementation.

3. Summative Assessment (Outcomes Analysis)

In the summative assessment (outcomes analysis) stage of program documentation, measures are taken of the effects of programmatic activities on a target group.

Case Example:

In the case of School A, students were the target group of activities to boost achievement. Test scores on the Metropolitan Achievement Test in the spring of the school year indicated that school A exceeded its goal of increasing the number of students scoring at the 50th percentile by 25%. The data revealed that the number of students scoring at or above the 50th percentile on the total battery (Math, Language and Reading) increased by 40%. Activities designed to decrease absenteeism among a core group of students were targeted at both those students and their families (e.g., providing supervised transportation or a "buddy system" for children who must travel through dangerous neighborhoods). At the end of the year, all of the families had been contacted and had received additional community support through the school's intervention. Absenteeism among this group declined by 75%, exceeding the stated goal in the Comprehensive School Plan. The activities designed to increase the number of parent volunteers targeted parents. The goal of increasing the number of regular daily parent volunteers from three to six was not quite realized, since only five parents volunteered on a daily basis.

SDP Outcome Assessment Designs, Measures and Data Sources

To assess outcomes, we suggest reviewing baseline measures to assess changes between the pre-implementation or early implementation stage and the-end-of year stage. This gives a pre-post test design. Measures we have suggested include: 1) achievement, 2) attendance, 3) suspensions, 4) behavior and special education referrals, 5) retention, 6) parent volunteers, 7) school climate, 8) student self-esteem, 9) dropouts, and 10) graduation rates. Sources for these data include: staff, parents, students, and archival records. Questions we seek to address during this documentation stage are:

- What did we do? (process review)
- How well did we do it? (quality check)
- What were the effects? (outcomes check)

We have developed scales to assist with the measurement of school climate, and suggest the use of self-concept measures, such as the Piers-Harris Self-Concept Scale to measure students' self-concept. We also have used the Classroom Environment Scale developed by Trickett and Moos (1974) to assess classroom climate. We are, at the present, however, in the process of developing our own Classroom Climate Scale.

Evaluation Data and Designs

This section is intended to explore the various types of evaluation data and designs typically used in educational evaluations. All of these have been used by the SDP except where the contrary is indicated. The accompanying chart shows the relationship of each kind of data and design to formative and summative assessments.

A. Type of Data:

For the purpose of this discussion, there are basically two types of data: quantitative and qualitative.

Quantitative Data: These are numerical data that can be statistically manipulated and analyzed. They are the kind of data that allow us to compute such statistical parameters as means, medians and modes and permit us to conduct t-tests, Chi square analyses, correlational analyses, analysis of variance procedures, multiple regression and others. We are able to compare control and comparison groups, and to say whether the groups are statistically different on some measure.

Qualitative Data: These data are narrative, descriptive, interpretive data that do not lend themselves to the kind of scientific rigor and statistical analysis that numerical data do. However, they provide very valuable information and insights not available from strict numerical data. They can help us understand, in a way that strictly numerical data cannot, the context in which observed outcomes occur, the reasons for observed behavior and the quality of program implementation. These data are usually derived through face-to-face interviews, direct observations, review of records and archives, and focus groups with participants in a program.

It is important to note that quantitative and qualitative data are not necessarily adversarial or incompatible, but in fact can be complementary and compatible. Qualitative data can be used to help define quantitative data needs and to explicate quantitative findings. Quantitative data can also serve to focus attention on areas for more in-depth qualitative ethnographic investigation.

B. Sources of Data

Primary Data Sources

These are direct sources of data, such as individuals who are targets of the research investigation. Thus, when students complete Piers-Harris Self-Concept Scale, they are providing primary data, since their self-concept assessments are coming directly from them. Similarly, when teachers complete the SDP School Climate Scale, they are providing primary data, because these are direct assessments of their perceptions of school climate. Interviews and observations also provide primary data.

Secondary Data Sources (Archival Data Sources)

These are indirect sources of data, such as school records, reports and minutes of meetings. Standardized achievement test scores, classroom grades, and mastery test scores are examples of secondary data sources, also referred to as archival data. Examples of archival or secondary data sources include minutes of School Planning and Management Team Meetings, Mental Health Team meetings and PTO/PTA/PTSA meetings.

C. Levels of Data

Aggregated Data

These are grouped data that represent the general performance of a group on some measure. They mask or conceal subgroup differences. For example, the average percentile rank for third graders in a school district conceals school differences, gender differences and race differences.

Desegregated Data

These are ungrouped data to a certain extent. They reveal subgroup differences on a given measure. For example, standardized achievement scores for School A may be desegregated to show grade-level differences, race differences within grades, and gender differences within race.

D. Types of Evaluation Designs

Experimental

Experimental designs assume total control and manipulation of any variable that the evaluator or researcher wants to control. These designs are virtually impossible in educational research, where certain give-ins must be accepted. For example, an educational researcher/evaluator cannot decide which students should attend school A or be in the second grade. The researcher/evaluator must accept certain ones on prior conditions. A truly experimental design can be achieved only in laboratory settings where all conditions are under the researcher's control, including random selection of and assignment to treatment conditions. This is the only design that the SDP research unit has not pursued, because it is impossible to do so.

Quasi-Experimental Designs

In these designs the researcher evaluator accepts certain preconditions in the research situation, yet strives to assert some measure of control over other conditions that are controllable. A basic premise of these designs is that the researcher/evaluator can at least control the selection of subjects through some randomized process. For example, in a study of SDP effects on students' self-concept, we were able to select randomly students in SDP schools and compare them with students in non-SDP schools on the Piers-Harris Self-Concept Scale. We were not able, however, to assign students to SDP and non-SDP schools.

Survey Research Design

These designs are mostly concerned with collecting data on perceptions and attitudes related to an issue of particular interest. For example, we have an interest in knowing student, staff and parent perceptions of their schools' climate and in some instances their attitudes toward the SDP and to change in general. We collect data through questionnaires which survey perceptions of school climate and attitudes. We then summarize our findings and feed the information back. However, this could easily become a quasi-experimental design which is also usually when we compare perceptions of school climate in SDP schools with perceptions of school climate in non-SDP schools. The step that separates the survey research from the quasi-experimental design is the comparison of the treatment group (SDP) with the control or comparison group (non-SDP).

Ethnographic Research Designs

These are designs in which the research evaluator spends considerable time observing, interviewing and interacting with subjects of the study. An example of this approach has been our case studies in SDP schools where members of our research staff have spent days interacting with, observing and interviewing schools' staff, students and parents, and observing context factors, interpersonal relationships and special programs. Our ethnographic studies may be best classified as a quasi-ethnographic studies, since true ethnographic studies require long periods of intensive study in which the ethnographers immerse themselves in the life and culture of the school or groups they are studying. Due to time limitations, we have not been able to do this kind of authentic ethnography.

E. Types of Analysis

Descriptive

These analyses are basically superficial in nature, in that they provide simple statistical data which do not allow the researcher/evaluator to draw inferences or conclusions about program effectiveness with any degree of statistical confidence. They usually include graphs and charts, ranges, mean and median scores, and standard deviations. They can tell us much about a group's performance on a measure, but little about differences between groups.

Inferential Analyses

As the name suggests, these analyses allow the researcher/evaluator to draw inferences about the effectiveness of a program or intervention by comparing two or more groups, such as the intervention group and a control group, or by comparing a group with itself at different points in time. With inferential analyses, acceptable levels of significance ($p<.05$), are used to establish a meaningful difference that the intervention makes. Some of the inferential statistical tests and procedures include: t-tests, Chi square, analysis of variance, multiple regression, discriminant analysis and others.

Part Two: Instrumentation

A rational and an overview of eleven instruments and a description of how and when to use them to document and evaluate the Comer School Development Program are presented in this section. Three categories of instruments are discussed: Needs

Assessment (Context Analysis), Formative assessment (Process Analysis), and Summative Assessment (Outcome Analysis). The use of context, process and outcome instruments overlap considerably because of the SDP's comprehensive approach to educational reforms. Summary descriptions of the three types of instruments and the variables they measure are available from the School Development Program upon request.

Needs Assessment (Context Analysis) Instruments

The unit of analysis of needs assessment instruments include: students, parents, and personnel. Within each unit of analysis or population, the instruments help to identify gap between present conditions and specified goals and objectives.

RESEARCH AND EVALUATION SUMMARY CHART

Types of Data	**Outcome/ Formative**	**Process/ Summative**
•Quantitative	XX	XXX
•Qualitative	XXX	XX
Source of Data		
•Primary	XXX	XXX
•Secondary	XXX	XXX
Levels of Data		
•Aggregated	XXX	XXX
•Desegregated	XX	XXX
Types of Designs		
•Experimental	X	XXX
•Quasi-Experimental	X	XXX

•Survey Research	XXX	XXX
•Ethnographic Research	XXX	XX
Types of Analyses		
•Descriptive	XXX	XX
•Inferential	X	XXX

Note XXX = Strong Relationship
XX = Moderate Relationship
X = Weak Relationship

Students

Achievement

Standardized and classroom test scores are used to examine student academic achievement before the program begins and at critical stages of implementation and specific times in the program's life cycle. The purpose of this effort is to gather baseline data that identify patterns and trends in school achievement over time. Analysis of aggregate and individual school performance indicators are a of part of needs assessment. These measures include absenteeism, suspensions, retention, tardiness, special education placement, behavioral and social referrals. The SDP database form which is used to gather these data is available from the School Development Program upon request.

Self-Concept

To measure self-concept we use the Piers-Harris Self-Concept Scale. The scale consists of 80 self-descriptive statements about how children perceive themselves. Responses are coded "yes," if the statement is true for a particular child and "no" if the statement is false.

The eighty items are divided into six sub-scales: Behavior, Intellectual and School Status, Physical Appearance and Attributes, Anxiety, Popularity, and Happiness and Satisfaction. We developed the six sub-scales through a statistical technique known as factor analysis. This technique groups "factors" or variables which are related because the items describe a common phenomenon or condition, such as behavior.

Classroom Climate

The Classroom Environment Scale is a modified version of the Classroom Environment Scale (CES) developed by Tricket and Moos in 1974. This instrument measures the factors which influence the social relations that pertain to learning and teaching in the classroom environment. It consists of 30 descriptive questions about prevailing classroom conditions. Students are requested to answer "yes" or "no" to such questions, such as "Are students in your class well-behaved?"

School Climate

The Student Version of the School Climate Scale developed by Haynes (1990) is designed to gather data about students' perception of the psycho-emotional and social climate of the school environment. The SDP School Climate Scale consists of six dimensions: 1) caring and sensitivity, 2) parent involvement and home school relations, 3) cooperativeness/competitiveness spirit, 4) order and discipline, 5) achievement motivation, and 6) respect and trust. Each item on the instrument is scored on a scale from one to five. The mean of each dimension is derived by adding all the individual items and dividing by the number of items.

Parents

The Parent Version of the SDP School Climate Scale, developed by Haynes in 1990, consists of items divided into four major sections. Parents respond on a five-point scale, with answers ranging from "strongly agree" to "strongly disagree," depending on how accurately the statement describes climate conditions at school, as well as the relation between home and school. Part One consists of three items describing the "caring and sensitivity" dimension of general school climate. Other dimensions of the instrument include: parental involvement and home-school relations, respect and trust, order and discipline, and achievement motivation.

School Personnel

General School Staff

The General School Staff Version of the SDP School Climate Scale developed by Haynes (1989) is almost identical to the Parent Version with the following exception: Items specifically related to school settings are included. Dimensions of the General School Staff Version of the SDP School Climate Scale include: caring and sensitivity, parent involvement and home school relations, order and discipline, collaboration and togetherness, school-community relations, equity and fairness, achievement motivation, respect and trust. Each item is scored on an ascending scale from one to five, where one is "do not know" and five is "very effective," and NR is "not relevant." In addition to demographic variables, the survey includes specific items about successful or unsuccessful program activities, job satisfaction, and major concerns of parents and teachers.

Teachers

The Teacher Version of the SDP School Climate Scale is almost identical to the Staff Version with the following exception: Items specifically related to classroom interactions are included. Specific items pertain to the career experiences of teachers.

Formative Assessment (Process Analysis) Instruments

Formative assessment of the SDP is based on several instruments. These include: the School Management Questionnaire, the SDP Quality Standards Process Documentation Inventory (SDPQSPDI), and the SDP Implementation Checklist and Rating Scale. In addition to these instruments, the School Climate Scale in its four versions -- Parent, Teacher, Staff, and Student -- are useful in formative assessment.

The School Management Questionnaire (SMQ) consists of three components: the School Planning and Management Team (SPMT), the Mental Health Team/School Social

Support Team (MHT) and the Parents' Program (PP). The SMQ requests that members of the SPMT, MHT and participants of the Parents' Program rate activities related to the function, role, values and program undertaken by their respective teams.

The School Planning and Management Team (SPMT) questionnaire has six dimensions: organization, communication, the role of the principal, application to problem-solving approach, adequacy of parent and teacher representation on SPMT, and social relationships within the SPMT. These dimensions are useful in correlating quality of implementation with outcome measures.

Mental Health Team/School Social Support Team (MHT/SSST) questionnaire consists of five dimensions: the function of the MHT, social relationships among members of the staff and the constituents which they serve, organization of the MHT, valuation of the MHT, and approach to team work. Members of the MHT rate the 21 items on this ascending scale from one to five, with one as "poor" and 5 as "excellent." Descriptive inferential analyses of these dimensions of the scale are used in determining the quality of program implementation.

The Parents' Program questionnaire consists of six dimensions: parents participation, parent representation on the SPMT, parent support of school activities, valuation of PTA in the school, and school activities that are designed to encourage parental participation in schools. Each of these dimensions is critical in determining the adequacy of program implementation and outcomes.

Process Documentation

The School Development Program Quality Standard Process Documentation Inventory provides an assessment of the SDP Quality Standards Inventory. The School Version consists of four sections. Pre-Planning; Functional; Operational; and Integrational. The instrument is sequential. Each section builds on the previous section to solicit information the adequacy of the implementation process. Operational questions attempt to reveal variations in program quality and its actual implementation.

SDP Implementation Checklist: This instrument is a telephone interview protocol that solicits information about the quality of the SDP implementation. In Part A, respondents are requested to respond with "yes," "no," or "not relevant" to questions about structures, process and organization of SDP in a district. These responses are analyzed to determine how adequately the program operates in each school. Part B request that respondents summarize the operations of the SPMT, MHT/SSST, community relations, and staff development activities.

The SDP Rating Scale is a diagnostic instrument that is designed to assist school districts in evaluating both the performance and the process of the SDP implementation. It deals mainly with programmatic issues and concern, such as SPMT and MHT operations and processes, Comprehensive School Plan objectives, and the Parents' Program. As with the MHT/SSST questionnaire, each item is rated on a scale from one to five.

Summative Assessment (Outcome Analysis) Instruments

The same instruments that are used to document needs and assess the process and quality of program implementation are also used in outcome analysis. Therefore, the distinction between process outcome instruments depends on the purpose and objective of the analysis. In practice, outcome instruments provide data on the efficacy and impact of the program. School performance measures such as absenteeism, tardiness, and referrals are also useful to measure program outcomes.

Aggregate Data

Aggregate data indicate the status of school performance at both the district and the building levels. Knowledge of SDP effects on aggregate school performance indicators is useful for planning, management, and decision-making processes of SDP operations. Attendance, absenteeism, graduation rates, suspensions, and referrals for behavior or special educational data can be aggregated to determine program impact. Variables in aggregate data sets are often interrelated. For example, school attendance is strongly related to school success. Once in school, the amount of time students spend on academic tasks has a positive relationship to achievement. Tardiness is strongly related to both absenteeism and achievement.

Direct Observations

Beyond the quantitative aspects of program implementation and effects, direct observations can identify and provide insights about process issues and program outcomes. Observations of School Planning and Management Teams, Mental Health Teams, teachers' meetings, as well as children and their classrooms, provide useful data about program quality in schools.

Summary

The complexities of educational change require multiple observations, data sources and methods to provide the best and most useful information. Therefore, both qualitative and quantitative methods are proposed to document the School Development Program process and its effects.

Qualitative program documentation strategies allow the SDP research team to provide feedback that should inform decisions about possible program changes. Quantitative, quasi-experimental designs assess differences in such school performance measures as retentions, school climate, absenteeism, tardiness, parental involvement, referrals, and a comparison of the prevalence of psychosocial problems in SDP schools with those of non-SDP schools. The long-term goal of these research efforts is to assist schools in becoming better providers of educational services for children.

The definitions of educational evaluation presented above suggest that there are different types and models of evaluation. Indeed, there are different methods and procedures for conducting educational evaluation. Since no one method is the right one, it is therefore important for educators to get a feel for different approaches to evaluation.

However, it is critical to keep in mind that good and appropriate evaluation tends to make a comprehensive statement about program intents, goals, process, outcomes and efficacy to selected audiences, such as students, teachers, administrators, and parents. As a minimum criteria for conducting educational evaluations, evaluators should strive to present full descriptions of the program. This allows a clear view of the merits and shortcomings of the program through the use of procedures that do not ignore pervasive questions about the program under evaluation. Educators are committed to the idea that good education results in measurable and instrumental outcomes: academic achievement, the performance of children as test takers, non-academic student performance (e.g., attendance, punctuality, conduct), mastery, ability, and attitude. Evaluators have therefore wedded their methods and research designs to procedures that produced measurable outcomes.

Although the instrumental value of education is important, it is not always, however, an appropriate means for understanding educational programs designed to better educate children. Important benefits of education may be diffuse, long-delayed, and perhaps beyond the scrutiny of tools currently available to evaluators. This is why we recommend multiple paradigms and perspectives on education evaluations in order to produce information that can help us become better at educating children.

As a data-driven process, the School Development Program encourages and supports the consistent documentation of program needs, implementation quality and outcome effects. The principles which guide the implementation of the SDP should also guide its documentation. There must be "no fault," consensus and true collaboration among all school staff, parents, students, as well as key district-level staff in order to conduct needs assessments (context analysis), formative assessment (process analysis) and summative assessment (outcome analysis). The School Planning and management Team -- with input from the Mental Health Team and parent group, and with support from the central office -- works through the Comprehensive School Plan to conduct and coordinate documentation at the school level. Key departments and individuals at the central office, provide the SDP facilitator with consultation and help in coordinating documentation at the district level. At all levels and at each stage, documentation should be a totally collaborative process.

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Chapter Five

Teachers' Attributions for Student Performance: The Effects of Race, Experience, and School Context.

By

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Introduction

Over the past two decades, research on teacher attributions of student performance has focused on the development of attribution categories, establishment of dimensions which underlie these categories, and the investigation of how these attributions mediate student achievement and other outcome variables. However, there is a dearth of systematic empirical data which describe the psychosocial and attitudinal correlates of teacher attributions. Data are relatively limited with regard to the extent to which school context variables such as perceptions of school climate are related to teachers' causal attributions or whether teachers' attitudes about performing their jobs might account for variance in their explanations of student performance. Moreover, few studies have examined differences in the importance teachers from various racial backgrounds place on certain attributions for student performance.

The purpose of this study, therefore, is to elucidate the psychosocial and attitudinal correlates of teachers' attributions and also to examine how these attributions differ on the basis of race and other salient teacher characteristics.

Literature Review

Teachers' Causal Attributions

Research on teachers' causal attributions has been concerned primarily with identifying and categorizing the reasons teachers offer to explain student success or failure in academic settings (Groenewold and Marx, 1989). The research in these areas has varied widely in the efforts put forth to systematically examine the multiplicity of factors thought to affect teachers' attributions. A number of researchers have attempted to develop categories which describe the various attributions for student performance. These category descriptions range from students' ability and effort to students' physiological processes such as mood, maturity, and health (Clark & Peterson, 1986).

However, Weiner, Frieze, Kukla, Reed, Rest, and Rosenbaum (1971) suggested that ability, task difficulty, effort and luck are the most common categories referred to in teacher attribution research.

Methods used to develop these categories have included researcher-generated explanations of student success such as the four categories defined by Weiner, et al. (1971). Student-generated explanations of their own successes were taken from the research of Bar-Tal and Darom (1979) in which fifth grade students were asked to explain why they received the grade indicated on the last test they took. Categories developed from this research were subsequently used by other researchers to describe teachers' explanations of student success or failure (Frieze, 1976; Bar-Tal and Darom, 1979; Clark and Peterson, 1986). Teacher-generated explanations through free-response formats were taken from the work of Cooper and Burgher, (1980) who asked teachers enrolled in a graduate education course to list three students whom they expected to do well and three whom they expected to do poorly. Then they were asked to list reasons why they held these expectations and to indicate the percentage of students whose actual performance was caused by the reasons they listed. Categories were developed from these lists and subsequent analyses were conducted to identify underlying causal dimensions with relevance to teacher behavior. Particular attention was focused on uncovering possible dimensions related to teacher efficacy.

Two dimensions noted by attribution researchers to underlie these categories are: 1) locus of control: internal versus external causes, and 2) stability: stable versus unstable causes (Cooper and Burgher, 1980; Groenewold and Marx, 1989). The internal aspect of the locus of control dimension is concerned with whether teachers believe that factors internal to the student such as ability to perform certain tasks, and typical effort exerted to complete such tasks are explanations for student performance. Explanations hypothesized to be external to the student include the task difficulty, luck, teachers' attitudes and behaviors, and family support.

The other dimension, stability, is concerned with whether the attribution is fixed or unchangeable by the student. Thus, attributions for student performance such as student ability and the nature of the task are said to be stable factors and student effort or luck are said to be unstable factors (Cooper and Burgher, 1980; Clark and Peterson, 1986).

Globality is another dimension hypothesized by Abramson, Seligman, and Teasdale (1978) to describe teachers' attributions. Subsumed under this dimension is the global versus specific spectrum of attributions. This dimension characterizes task or situation specific explanations of student performance versus teachers' beliefs about the general ability of the student. For example, failure on a math test may be ascribed to lack of ability in math (task specific) or it may be ascribed to the student's general lack of ability (Groenewold and Marx, 1989).

Factors Affecting Teachers' Attributions

Teacher efficacy has been cited as one of the factors affecting teacher attributions. Findings in a study conducted by Hall, Hines, Bacon, and Koulianos (1992) indicated that attributions teachers hold about their students' academic performance vary depending upon the efficacy beliefs held by the teacher. Teachers in their study who were characterized as being high in the personal teaching efficacy beliefs were more apt to emphasize the academic program in explaining student success, and less apt to emphasize home influences.

According to Clark and Peterson (1986), other attribution theorists have intimated that a person's causal attributions will be affected by whether the person is an actor in the situation or an observer. This suggests that teachers' attribution for students' performance might be affected by or systematically biased by their role as an actor rather than observer.

Researchers (Jones and Nesbitt, 1971) have suggested the teacher's role as an actor may lead to two different patterns of teacher attributions: (a) ego-enhancing attributions, or (b) counter-defensive attributions. Teachers enhance their egos by accepting responsibilities for student success while blaming the students for their failures. In contrast, counter-defensive attributions occur when the teacher accepts responsibility for students' failure and gives credit to the student themselves for their success.

Hall et al. (1992) examined whether there would be any differences in teacher attributions on the basis of teaching level. Their findings indicated that the attributions teachers hold to account for their students' academic performance vary between elementary and secondary teachers for the failure condition, but not for the success condition. They also found that elementary teachers tended to emphasize the role of the instructional program and home influence in explaining student failure while middle school teachers tended to place more emphasis on student ability and less emphasis on peer influences.

School Climate and Teacher Attribition

Psychologists have argued that the types of theories that have the most significant and far-reaching consequences are those theories of a person that focus on general causes of human behavior (Clark and Peterson, 1986). The research on teachers' attributions, that is, perceptions and beliefs about the causes of student success and failures, have been pivotal in elucidating our understanding about how teachers' attitudes and behaviors mediate student achievement. Few studies have taken into account, however, the relationship between teachers' perceptions of climate and their attributions for student success and failure.

School climate is a widely studied construct about which many conclusions have been drawn and definitions offered. Despite the differing viewpoints, however, there appears to be general agreement in the research community that climate is a broad construct defined by a composite of variables from four dimensions: (1) ecology (the physical and material aspects), (2) milieu (the social dimension concerned with the presence of persons and groups), (3) social system (the social dimension concerned with the patterned relationships of persons and groups) and (4) culture (the social dimension concerned with the belief system, values, cognitive structures and meaning) (Anderson, 1982).

Since the teacher-student relationship is a social interactive one, it is deemed important to study teachers' beliefs about student performance as they relate to their perceptions of the school's climate as a social system. Teachers who hold certain perceptions regarding the relationship dynamics in the school, may also hold complementary beliefs or explanations for the reasons students perform the way they do in school.

The interest in the study of school climate as a context variable stems from a major belief that school climate is thought to be linked to educational outcomes especially achievement (Pallas, 1988). The Yale Child Study Center School Development Program has taken the position that school climate is a multidimensional construct that takes into account the levels of interaction among the adults in the school as well as students (Comer, 1980). School climate is noted in their research to be central to achieving positive outcomes for both the adults and students (Anson, Cook, Habib, Grady, Haynes, Comer, 1991). The School Development Program has also linked school climate to teachers' feelings of overall satisfaction on their job performance, and job support (Maholmes, Haynes, Bility, Emmons, 1992). Their work underscores the critical importance of engendering positive relationships in the schools and examining how these relationships impact teachers' attitudes, behaviors, and attributions.

While the research cited in this review provides a valuable framework within which to examine teachers' attributions, there is yet much work to be done particularly with regard to elucidating how school climate relates to teachers' attributions and also understanding whether differences in causal attributions may exist on the basis of teachers' race. Little research to date has focused on racial differences in teachers' classroom interaction patterns, attitudes and attributions. The present study will examine the extent to which teachers' attributions for student success and failure will differ on the basis of the teachers' race and level of experience; and whether teachers' attributions will be related to their perceptions of school climate and their sense of job satisfaction.

Method

This study was conducted as part of a larger study. Data collection methods are discussed in the methods section of that paper.

Description of Subjects:

The sample was comprised of 147 teachers from a public school district in the upper southeastern region of the country. The sample was predominantly female (n=144), and mostly African-American (n=74) and European- American (n=69). While the majority were relatively experienced teachers reporting that they had served between 11-30 (n=83) years in the profession, most teachers in this district were relatively new to their respective schools and reported serving less than five years (n=107) in their primary assignment.

The grade levels taught ranged from kindergarten to grade five, with a nearly equal distribution of teachers at each level (see Table 1). The majority of teachers (n=120) taught in self-contained classrooms.

Instrumentation:

The instrument used in this study was the School Development Program School Climate Survey (staff version) developed by Haynes and Lee (1989). The Survey is used to obtain information with regard to teachers' perceptions, attitudes, and attributions about school climate, job satisfaction, and student performance respectively. Means and standard deviations are reported in Table 2.

The School Climate Survey is a 61 item Likert-type instrument used to examine individual perceptions of school climate along 10 dimensions:

a) achievement motivation - the perception of the staff regarding students' confidence in their academic abilities, and students' willingness and eagerness to learn;

b) administrative sensitivity - the perceptions of the staff regarding the school administration's awareness of, and responsiveness to the needs of students, teachers, and parents;

c) collaborative decision-making - the involvements of parents, teachers, and other members of staff with the administration in every aspect of the decision-making process;

d) equity and fairness - the equal treatment of all participants in the school environment regardless of race, gender, socio-economic background, or job classification.

e) school/community relations - the extent to which members of the school are amenable and sensitive to the concerns and needs of the community;

f) teacher-student relationships - the mutual caring, respect, and responsiveness to students' diverse academic needs;

g) order and discipline - the perceptions of staff regarding school safety, and the establishment and enforcement of school rules and policy;

h) cooperativeness/competitiveness - the extent to which staff, students, and parents are willing to work cooperatively together, and to engage in healthy competition to promote achievement;

i) respect and trust - the positive regard for staff, students', and parents' concerns, issues and ideas; and

j) general school climate - the school 'ethos' or the overall tone of the school.

The response format for the Climate Survey is a four-point scale ranging from strongly agree to strongly disagree. The nine subscales were empirically derived through factor analytic procedures. General school climate was calculated from the mean of the 61 items. The reliability of these subscales were determined using Chronbach's Alpha. The coefficients are reported in Table 3.

Teacher Job Satisfaction is an eight item subsection of the SDP School Climate Survey. It is used to elicit information regarding teachers' attitudes about:

a) Job performance - the extent to which the teacher feels he/she is doing the job;

b) Job support - the extent to which the teacher feels he/she is receiving adequate support from the administration; and

c) Ability to cope with job pressures - the extent to which the teacher feels he/she can manage the responsibilities of the job, and have an impact on student learning; and

d) Overall job satisfaction - teachers' overall sense of performance and satisfaction with the job.

Overall job satisfaction was calculated from the mean of the eight items (see Table 3). Ability to Cope, Job Support and Job Performance subscales were derived through factor analysis procedures. The response scale for the Job Satisfaction subsection ranged from 0-100 percent in increments of ten. Teachers were asked to rate the percentage of time they agreed with each item. The reliability coefficients are reported in Table 3.

The Success Attribution subsection measured the extent to which teachers deemed certain characteristics and abilities to be important in achieving academic success. Following a Likert-type format, teachers were asked to rate the importance of the following statements on a scale of 1 - (unimportant) to 5 (very important):

a) Teachers ability to teach well;

b) The student's willingness to work hard;

c) The school's responsiveness to students' needs;

d) Parental involvement in the student's education;

An overall success attribution score was computed using the mean responses to each statement. A high score suggests that teachers feel that teaching ability, student motivation, school responsiveness, and parental involvement combined are important contributors to the academic success of the student. The reliability estimates of the success attribution subscale are reported in Table 3.

Finally, the Lack of Success Attribution subsection measured the extent to which teachers believe that the lack of certain characteristics and abilities are attributable to student lack of success. Following a Likert-type format, teachers were asked to rate the importance of the following statements on a scale of 1 (unimportant) to 5 (very important):

a) Teachers' inability to teach well;

b) The student's unwillingness to work hard;

c) The school's lack of responsiveness to students' needs;

d) Lack of parental involvement in the student's education;

Overall lack of success attribution score was computed using the mean responses to the four statements above. A high score suggests that teachers feel that teaching inability, student lack of motivation, lack of school responsiveness, and lack of parental involvement combined are important contributors to the lack of academic success of the student. The reliability estimates of this subscale are reported in Table 3.

Procedures

The questions to be addressed in this study are as follows:

1) To what extent will teachers attributions for student success and lack of success be related to teachers' perceptions of school climate and sense of job satisfaction?

2) How much variance in teachers' attributions will be accounted for by their perceptions of climate and their sense of job satisfaction?

3) To what extent will teachers' success attribution differ on the basis of race and years of teaching experience? and

4) Will there be significant interactions of race and teaching experience on teachers' attributions for success and lack of success?

Research question one will be addressed using Pearson Product Moment Correlations; question two will be addressed using Multiple Stepwise Regression procedures; and questions three and four will be addressed using Factorial Analysis of Variance (ANOVA) procedures.

Results

Success Attribution

Pearson correlation coefficients were computed to examine the extent to which success attribution would be related to the school climate dimensions, categories of teachers' feelings of job satisfaction, and selected demographic variables. Reported here are the variables found to be significantly correlated with success attribution. These results may be seen in Table 4.

The results indicate that the overall success attribution variable had highly significant correlations with teachers' ability to cope ($r=.32$; $p<.001$), and teachers' perceptions of school community relations (r=.35; p<.001). Significant relationships were observed for success attribution and: overall job satisfaction (r=.24; p<.01); general school climate (r=.29; p<.01), achievement motivation (r=.27; p=<.01), cooperativeness (r=.25; p <.01), and number of years in the teaching profession (r=.25; p <.01).

Observed for the student willingness to work hard variable were significant relationships with achievement motivation, (r=.26; p <.01) and school community relations (r=.25; p<.01).

The teachers' ability to teach well variable had highly significant relationships with job support (r=.35; p <.001), ability to cope (r=.37; p<.001), job satisfaction (r=.36; p<.001), and school community relations (r=.34; p<.001). Teachers' ability to teach well was also significantly related to: job performance (r=.27; p<.01), general school climate (r=.25; p<.01), cooperativeness (r=.30; p<.01), and years in the teaching profession (r=40; p<.01).

School's responsiveness to student's needs was related to ability to cope (r=.25; p<.01), general school climate (r=.25; p<.01), and school community relations (r=.31; p<.01).

Finally, level of parent involvement was found to be significantly related to ability to cope (r=.24; p<.01) and school community relations (r=.27; p<.01).

Lack of Success Attribution Variables

Surprisingly, none of these variables were found to have significant relationships with the demographic, school climate or job satisfaction variables. This may be due to distribution of responses to the items in this subscale. These variables will be explored more fully to examine whether lack of success might be differentiated on the basis of race and teaching experience.

Regression Analyses

In order to examine the amount of variance in teachers' success attributions which was accounted for by their perceptions of school climate and sense of job satisfaction, and to determine the order of importance of these variables in predicting teachers' success attribution, Multiple Stepwise Regression analyses were performed. Each success attribution variable was used as the criterion and the variables with which they were found to have significant correlations were used as the predictors. The results of this analysis are illustrated in Table 5.

Overall Success Attribution. School community relations and teachers' ability to cope were the two variables found to significantly predict overall success attribution. Together, they accounted for 12 percent of the observed variability in this variable ($R=.35$; $R^2=.12$).

Students' Willingness to Work Hard. Achievement motivation, a school climate variable, was the only variable to be entered in the equation accounting for only 8 percent of the variance in this equation ($R=.28$; $R^2=.08$).

Teachers Ability To Teach Well. In this stepwise analysis, three significant variables were entered in the following order: a) teaching experience ($R=.36$; $R^2=.13$), b) ability to cope ($R=.46$, $R^2=.21$), and c) cooperativeness/competitiveness ($R=.49$; $R^2=.24$).

Level of Parental Involvement. In this analysis, school community relations was the only significant variable to be included accounting for only 8 percent of the variance ($R=.28$; $R^2=.08$).

The School's Responsiveness to Student's Needs. School community relations was the only significant variable to be entered in the stepwise analysis accounting for 8 percent of the variance ($R=.29$; $R^2=.08$).

Analysis of Success Attribution by Race and Number of Years in the Teaching Profession

A 2 (race) X 4 (years in the teaching profession) Factorial ANOVA was computed to examine the extent to which success attribution would differ on the basis of categories of race and number of years in the teaching profession and to examine whether there would be significant interaction effects. Table 6 illustrates a breakdown of the success attributions variables race/ethnicity.

Overall Success Attribution

There were no significant main effects of race or number of years in the teaching profession on overall success attribution or on the student willingness to work hard variables. However, significant 2-way interactions were found. African-American teachers' overall success attribution score appeared to increase as number of years in the profession increased. Comparatively, European-American teachers showed more fluctuation in the success attribution score. Higher success attribution scores were found for European-American teachers relatively new to teaching, lower scores were found for teachers who had between 6 and 20 years experience, and a dramatic increase was observed for teachers with 21-30 years of experience as a teacher. (See Table 7A). The same trend for African-American and European-American teachers was observed for the student willingness to work hard attribution variable (see Table 7B).

Teacher's Ability to Teach Well

In the analysis of the teachers' ability to teach well variable, a significant overall main effect was observed (F=2.65; p=.03), however, when the independent variables were observed individually no significant effects were found nor was there a significant interaction effects. African-American teachers' mean scores were higher than the sample means, and teachers with 21-30 years teaching experience also scored higher than the mean for the sample. Although there were no significant interaction effects, the same pattern found in other analyses was observed here. African-Americans showed a steady increase as years of experience increased, while European-Americans scores showed more fluctuation across the teaching experience categories. African-American teachers also had, with the exception of teachers with less than 5 years experience, higher scores at each level of experience than did their European-American colleagues (see Table 7C).

The School's Level of Responsiveness

A significant effect of teaching experience on the schools' level of responsiveness attribution variable emerged in this analysis. Teachers with 21-30 years teaching experience had significantly higher mean scores than teachers with less experience. No interaction effects were observed. However, European-American teachers had higher scores in all experience categories, except the 11-20 years experience category. These results may be seen in Table 7D. Level of Parent Involvement

Finally, for the level of parental involvement variable, a significant 2-way interaction was observed. African-Americans showed a high score for teachers with less than 5 years teaching experience. A sharp decrease was observed for teachers with 6-20 years experience, and an increase in scores was observed for teachers with 21-30 years teaching experience. European Americans showed the same pattern but had higher mean scores than their African-American counterpart in the first two categories, lower scores in the third category, and similar scores in the last category. (See Table 7E).

Analysis of Teachers' Lack of Success Attributions by Race and Teaching Experience.

A 2 (race) X 4 (years in the teaching profession) Factorial ANOVA was computed to examine the extent to which lack of success attribution would differ on the basis of categories of race and number of years in the teaching profession, and to examine whether an interaction of race and teaching experience would exist. Table 8 provides a breakdown of the lack of success variables by race/ethnicity.

Overall Lack of Success

For overall lack of success, a significant race effect was observed with European-American teachers having higher mean scores. No significant interactions were found, however, European-American teachers had higher scores than their African-American counterparts at every level of teaching experience except the 11-20 year category (see Table 8A).

Students' Unwillingness To Work Hard

For students' unwillingness to work hard variable, significant race effects were observed, however, no interactions were found. The European-American teachers had significantly higher mean scores overall. In every teaching experience category except for the 11-20 years category, European-American teachers were also observed to have higher scores than their African-American counterpart. These results may be found in Table 8B.

Teachers' Inability To Teach Well

In the analysis of the teachers' inability to teach well variable, only a significant interaction effect was found. African American teachers' mean scores tended to increase as level of experience increased except in the 21-30 years experience category where a drop in mean scores was observed. In contrast, European-American teachers' scores held steady until the 11-20 year category where a sharp decrease was observed. At the 21-30 year category a marked increase was also noted for European-American teachers (see Table 8C).

Schools' Lack of Responsiveness to Student Needs

No significant effects were found for the schools' lack of responsiveness to student needs variable.

Lack of Parental Involvement

However, a highly significant race effect was found for the lack of parental involvement variable. Again, European-American teachers tended to have significantly higher scores overall than their African-American colleagues. African-American teachers had dramatically lower scores at both ends of the experience spectrum.

Discussion

The findings in this study reveal that the attribution teachers hold about student success were significantly related to teachers' perception of school climate and sense of job satisfaction. In the correlational analyses, overall success attribution was found to be highly correlated with school community relations, a school climate variable, and with ability to cope, a job satisfaction variable. This indicates that teachers' holistic attributions regarding student success is inextricably linked to their perceptions about relationships between home and school, and to the extent to which they feel capable of handling the responsibilities of teaching. In other words, teachers who assign importance to the combined influences of home, school, teacher ability, and student motivation as factors accounting for student success, are likely to understand the critical importance of home-school relations to student growth, development and learning and are likely to feel they can cope with their job. This finding underscores the importance of holistic approaches to education and is consistent with the work of proponents of holistic educational practice like the Comer School Development Program which puts forth the notion that children are a part of a social network and that efforts to impact learning and achievement should seek to address issues pertinent to that network (Comer, 1980). Other variables found to have significant correlations with overall success attribution were overall job satisfaction, general school climate, achievement motivation, cooperativeness/competitiveness and number of years in the teaching profession all of which further substantiate the notion that teachers' attributions are related to perceptions of school climate, and job satisfaction.

As expected, the students' willingness to work hard attribution variable was significantly correlated with the achievement motivation dimension of climate. This indicates that the importance placed on students' willingness to work hard is related to the extent to which teachers perceive that students are willing and eager to learn. Similarly, the correlation between this attribution variable and school community relations suggests that the importance teachers place on students' willingness to work hard is connected, in some way, to the various roles that teachers perceive the community can play in assuring the academic success of students. For example, teachers may hold the belief that community involvement through role modeling, mentoring, crisis intervention or family support may result in an increased willingness on the part of students to do well in school. Teachers' perceptions of the willingness on the part of the school to involve the community, and their notions about students' desire to participate in such school-community programs may be directly linked to teachers' attitudes about student academic performance.

Teachers' ability to teach well was related primarily to the job satisfaction variables (job support, ability to cope, and overall job satisfaction) although school community relations again emerged as a significant correlate. Teachers who place a great deal of importance on teaching ability as a contributor to student success may also have concerns about the level of job support received from administrators, colleagues, and parents and may feel that their ability to cope is contingent upon the availability and efficacy of these support systems to help ease the demands that teaching places on them. In situations where these systems are not in place, it is likely that there may be higher incidence of teacher stress and burnout resulting in feelings of dissatisfaction and disillusionment about the teaching profession which, in turn, may impact teachers' feelings about their ability to teach well under such conditions. These findings highlight the importance of administrative, peer, collegial and community support to the teaching and learning process in that teachers who feel that their school climate is supportive and nurturing are likely to feel much more efficacious and more satisfied in their role as teacher.

The school's responsiveness to students' needs variable seemed to be linked to every social-interactive facet of the schooling process such as a) collegiality and support: the professional interactions that allow teachers to feel that they can handle the demands of teaching, b) the ethos or the relationship dynamics among all participants in the schooling process, and c) outreach or the development of a meaningful relationship between the school and community. All of these interaction dynamics are brought to bear on teachers' ascriptions for students' success, again supporting the notion that climate plays an integral role in elucidating teacher attributions.

Finally, the extent to which teachers attribute level of parent involvement to student success is related to the extent to which they feel able to cope and the extent to which they perceive the relationship between school and the community to be positive.

Results from the stepwise regression analyses indicate that perceptions of school community relations is, by far, the most influential predictor of four of the five categories of success attribution followed by ability to cope and achievement motivation. This supports the notion that teachers' perception of climate, particularly with regard to the relationships between the school and community, and perceptions of students' academic motivations are important context variables to be explored in teacher attribution research. The fact that teachers' assessment of their ability to cope was the only job satisfaction variable to emerge as a significant predictor makes the case for systematically exploring teachers' feelings of efficacy as a factor affecting teachers' attributions.

An obvious finding in the analysis of teachers' ability to teach well was that teaching experience, accounted for the most variance in this variable, followed by ability to cope and cooperativeness/competitiveness. This indicates that in addition to teaching experience, positive teacher-student-parent relations as well as collegial interactions are central to the belief that teaching ability is an important mediator of student success.

The analysis of success attribution by race and years in the occupation revealed that the five categories of success attribution were greatly influenced by the interaction of race and teaching experience. For both racial/ethnic groups the more experienced the teacher, the higher the score for the overall success attribution variable. However, this trend was much more consistent among the African-American teachers, which suggests that the more experience the African-American teacher has, the more likely they are to believe that student success is attributable to factors both internal and external to students. For the European-American teacher on the other hand, beliefs about the importance of the combined effects of the school, teacher, student and home varys among teachers with more experience.

A similar pattern was observed for the student willingness to work hard attribution variable in that the more experienced African-American teacher assigned student effort as an essential factor in student success while their counterpart tended to vary in this belief at early and intermediate stages of experience. In the highest experience category, European-American teachers felt very strongly that student effort, an internal stable dimension, was attributable to student success.

An interesting pattern emerged with the level of parent involvement attribution variable in which the scores were high for relatively new teachers and experienced teachers of both ethnic groups. This finding may be reflective of a novice vs. veteran teacher dichotomy in that new teachers may perceive parent involvement as a novel idea or an innovative approach, while veteran teachers may have learned to involve parents in meaningful ways in their classroom practice as a result of their experience and understanding of the essential role parents play in student performance. The mean scores for this variable were lower during the intermediate experience categories what could suggest that these teachers may have been experimenting with other innovative and pedagogical practices deemed essential to student success.

The fact that African-American teachers had higher mean scores for the teachers' ability to teach well variable may be indicative of elements of an ego-enhancing pattern of attribution as reported by Clark and Peterson (1986). This finding may also be reflective of the level of confidence these teachers have in their ability to teach and to be effective with children from low-income backgrounds.

Comparatively, for the lack of success, variable race and ethnicity seemed to have a more differential effect on the various attributions than teaching experience alone or the interaction of race and experience. For the most part, European-American teachers tended to have higher lack of student success scores across all experience level categories than did African-American teachers indicating that European-American teachers tended to place more emphasis on factors that were attributable to student failure rather than their success. It may be that these teachers approach instruction from a deficit model perspective focusing attention on upgrading students rather than capitalizing on their strengths. Similar to the patterns observed for the success condition, the more experienced African-American teacher felt strongly that students' lack of success was the responsibility of the teacher. This pattern of attribution departs somewhat from the ego-enhancing pattern in that these teachers accept responsibility for both success and failure. However, the drop in the teachers' inability score at the highest experience level indicates that the teacher shifts the responsibility from themselves onto other factors possibly acknowledging the effects of external and unstable factors beyond the control of the student.

European-American teachers seemed to place a great deal of importance on the lack of parent involvement as a contributor to student lack of success again indicating that these teachers are likely to place the responsibility for students' lack of success on factors external to the student. This finding may also be illuminative of teachers' knowledge of these students' home environment and their personal views on the effect of home influences on student performance. Follow-up studies in this area would include the examination of the relationships among teachers' attributions, personal teaching efficacy and knowledge of student background characteristics.

For the student unwillingness to work hard attribution variable, African-American teachers at the 11-20 years experience category showed a marked increase in the importance they assigned to this variable indicating that at this point in their experience, they believe strongly that lack of effort is attributable to student lack of success. European-American teachers seemed to hold steady in their ascriptions of this internal stable factor as a cause for lack of success.

For the most part, African-American teachers assigned more importance to the success attribution variables than they did for lack of success variables in comparison to European-American teachers who were observed to assign more importance to lack of success variables, with the exception of the teaching inability variable. An explanation for this may be that African-Americans are keenly aware of how factors external to the student such as racism, poverty, inner-city life may contribute to students' lack of success and may feel that these researcher-generated attributions presented in this study paint only a small part of the picture. This finding warrants further study, particularly in identifying appropriate attribution categories that would fit the belief system and interaction patterns of African-American teachers.

In conclusion, findings from this study further advance the notion that success attribution is significantly linked to perceptions of school climate and teacher feelings of job satisfaction. In almost every case, success attribution was linked to school community relations and teachers' ability to cope underscoring the importance of examining teacher attitudes and perceptions in light of school context. These findings also contribute to our understanding of how psychosocial factors and teachers' coping strategies relate to their views and beliefs about the students' learning and achievement. The findings in this study bring to bear a number of implications for teaching and learning and professional development:

1) School Community Relations: Findings in this study reveal that perceptions of school community relationships play an important role in predicting teachers' attribution for student success. These relationships should be established and maintained with schools through opportunities for role

modeling, family support and intervention, and through direct involvement in educational decision-making and practice.

2) Teacher support: Teachers bear the burden for the actual imparting of knowledge and facilitating student learning and, as a result, need support from peers and colleagues to share their concerns and to prevent teacher stress and burnout. These relationships can be developed through frequent staff retreats and meetings, team teaching practices, opportunities for reflection, and also through and communicating via computer electronic networks with teachers outside their immediate locale and abroad.

3) School Context: Research that focuses on teacher behavior and attitudes should also include examinations of school context variables such as perceptions of climate. Understanding how teachers adopt and internalize the culture of the school will elucidate our knowledge of how and why teachers exhibit various patterns of behavior and why they make certain causal ascriptions for student behavior. Researchers in school intervention programs such as the School Development Program have taken the lead in examining the role of climate in affecting student outcomes and teacher behavior.

4) Multicultural Awareness: There is a growing body of research on the importance of cross-cultural classroom interactions between teachers and students. However, extensive research needs to be conducted which examines how the behavioral patterns of teachers from various ethnic backgrounds differ and the extent to which those behaviors and attitudes may have an impact on various student outcomes.

Limitations of this study include the unavailability of sufficient background variables; such as type of teacher training (i.e. traditional vs. alternate route) or demographics on previous teaching assignments (e.g. public vs. private; urban vs. suburban), on which to match participants in the study. Teacher ratings of student performance were not available at the time of data collection. This information would have allowed the researcher to examine whether teacher ratings of student performance was to some extent a function of teachers' attributions and expectations. In addition, the researchers would have been able to examine whether the differences in patterns of attribution observed on the basis of race would also have been evidenced in their ratings of student performance.

While there is much variance yet to be accounted for in understanding how teachers explain success, the findings reported here provide a valuable starting point and lay a foundation for further empirical research in this area.

Table 1. Description of Demographic Characteristics of the Sample of Teachers (n=147).

Sample Characteristic	Number	Percentage
Current Position		
Teacher	147	100
Gender		
Males	3	2
Females	144	98
Race		
African-American	74	51.4
European-American	69	47.9
Other	1	.7
Years at Present School		
Less than five	107	73.3
Six to ten	16	11.0
Eleven to twenty	13	8.8
Twenty-one to thirty	7	4.8
Over thirty	3	2.1
Years in Teaching Profession		
Less than five	28	19.0
Six to ten	31	21.1
Eleven to twenty	52	35.4
Twenty-one to thirty	31	21.1
Over thirty	5	3.4
Number of Classes Taught		
one	120	85.1
two	21	14.9
(missing)	6	
Grade Level Taught		
Kindergarten	25	18.0
First	21	15.1
Second	27	19.1
Third	19	13.7
Fourth	27	19.4
Fifth	20	14.4
(missing)	8	

N's vary due to missing data. Valid percentages are reported

Table 2. Summary of Means and Standard Deviations for the SDP Climate Survey Subscales.

Subscale Dimension	N	Mean	Standard Deviation
General Climate	108	3.18	.39
Achievement Motivation	136	2.93	.56
Order & Discipline	137	2.89	.51
Administrative Sensitivity	135	3.31	.53
Collaborative Decision-Making	135	3.08	.46
School/community Relations	138	2.95	.41
Teacher-Student Relations	141	3.35	.40
Cooperativeness/ Competitiveness	139	3.12	.42
Equity and Fairness	134	3.39	.51
Respect and Trust	141	3.13	.48

Table 2. (continued)

Job Satisfaction	**139**	**88.9**	**9.9**
Job Support	**144**	**90.4**	**10.3**
Ability To Cope	**143**	**91.4**	**8.4**
Job Performance	**145**	**85.4**	**15.3**
Success Attribution	**147**	**4.7**	**.47**
Lack of Success Attribution	**71**	**4.18**	**1.00**

***N's vary due to missing values**

Table 3. Reliability Estimates for Dimensions of Climate, Attribution, and Job Satisfaction

Subscale	Number of Items	Alpha Coefficient
Overall Job Satisfaction	8	.82
Success Attribution	4	.79
Lack of Success Attribution	4	.87
Achievement Motivation	6	.88
Order and Discipline	4	.63
Administrative Sensitivity	8	.90
Collaborative Decision-Making	8	.87
School-Commmunity Relations	8	.74
Teacher Student Relations	8	.86
Cooperativeness/Competitiveness	6	.83
Equity and Fairness	5	.86
Respect and Trust	5	.81

***n=108**

Table 4.

Pearson Product Moment Correlations of Success Attribution, School Climate, Job Satisfaction, and Selected Demographic Variables.

	Success Attrib	Student Willingness to work hard	Teachers' Ability to teach well	School's level of responsiveness	Level of Parent Involvement
Job Performance	.18	.10	.27*	.14	.10
Job Support	.19	.08	.35**	.16	.09
Ability to Cope	.32**	.10	.37*	.25*	.24*
Job Satisfaction	.24*	.21	.36**	.19	.16
General School Cli	.29*	.22	.29*	.25*	.20
Achievement Moti	.27*	.26*	.23	.24	.17
School Community	.35**	.25*	.34**	.31*	.27*
Cooperativeness	.25*	.16	.30*	.20	.17
Yrs in T Profession	.25*	.09	.40*	.24*	.15

* p<.01
**P<.001

Table 5.

Summary of Multiple Stepwise Regression Analyses

Criterion Variable	Predictor Variables Entered	R	R2	F	P
Overall Success Attribution	1. School Community Relations	.35	.12	14.55	<.001
	2. Ability to Cope	.40	.16	10.88	<.001
Student Willingness to work hard	1.Achievement Motivation	.28	.08	9.17	<.003
Teachers' Ability to teach well	1. Teaching Experience	.36	.13	15.81	<.001
	2. Ability to Cope	.46	.21	13.66	<.001
	3. Cooperativeness	.49	.24	10.78	<.001
Level of Parental Involvement	1. School Community Relations	.28	.08	9.12	<.003
School's Responsiveness to student needs	1. School Community Relations	.29	.08	9.61	.002

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Table 6. Breakdown of Success Attribution Variables by Race/Ethnicity

	African-American		European-American	
	M	(SD)	M	(SD)
Overall Success Attribution	4.66	(.49)	4.6	(.46)
Students' willingness to work hard	4.60	(.59)	4.7	(.52)
Teachers' ability to teach well	4.85	(.39)	4.6	(.47)
School's responsiveness to students' needs	4.74	(.55)	4.6	(.53)
Level of parent involvement	4.4	(.84)	4.5	(.77)

Tables 7A-E. Summary of Factorial Analysis of Variance Using Success Attribution Variables as the Dependent and Race and Teaching Experience as Independent Variables

A. Dependent Variable Name: Overall Success Attribution

	<5 years	6-10 yrs	11-20 yrs	21-30 yrs
Black	4.17	4.54	4.71	4.82
White	4.75	4.66	4.49	4.82
			F	P
Race			.465	.49
Experience			2.12	.10
Interaction			4.09	.008

B. Dependent Variable Name: Student Willingness to Work Hard

	<5 years	6-10 yrs	11-20 yrs	21-30 yrs
Black	4.11	4.58	4.68	4.71
White	4.79	4.74	4.52	4.71
			F	P
Race			1.21	.27
Experience			.60	.61
Interaction			3.13	.02

C. Dependent Variable Name: Teachers' Ability To Teach Well

	<5 years	6-10 yrs	11-20 yrs	21-30 yrs
Black	4.56	4.75	4.88	4.96
White	4.68	4.63	4.61	4.86
			F	P
Race			2.54	.11
Experience			1.57	.19
Interaction			1.13	.33

D. Dependent Variable Name: School Responsiveness to Student Needs

	<5 years	6-10 yrs	11-20 yrs	21-30 yrs
Black	4.33	4.50	4.80	4.92
White	4.68	4.68	4.52	5.0
			F	P
Race			.04	.83
Experience			2.74	.04
Interaction			2.30	.08

E. Dependent Variable Name: Parent Involvement

	<5 years	6-10 yrs	11-20 yrs	21-30 yrs
Black	3.67	4.33	4.48	4.71
White	4.84	4.58	4.30	4.71
			F	P
Race			2.53	.114
Experience			1.50	.217
Interaction			4.20	.007

Table 8. Breakdown of Lack of Success Attribution Variables by Race/Ethnicity

	African-American		European-American	
	M	(SD)	M	(SD)
Overall lack of Success	4.18	(1.0)	4.46	(.55)
Students' unwillingness to work hard	4.15	(1.17)	4.50	(.72)
Teachers' inability to teach well	4.28	(1.11)	4.37	(.71)
School's lack of responsiveness to students' needs	4.25	(1.04)	4.46	(.74)
Parent's lack of involvement	4.02	(1.13)	4.52	(.72)

Tables 8A-E. **Summary of Factorial Analysis of Variance Using Lack of Success Variables as the Dependent and Race and Teaching Experience as Independent Variables**

A. Dependent Variable Name: Overall Lack of Success

	<5 years	6-10 yrs	11-20 yrs	21-30 yrs
Black	3.58	4.22	4.39	4.26
White	4.49	4.59	4.27	4.75
			F	P
Race			4.11	.04
Experience			.75	.52
Interaction			2.27	.08

B. Dependent Variable Name: Students' Unwillingness to Work Hard

	<5 years	6-10 yrs	11-20 yrs	21-30 yrs
Black	3.78	3.70	4.40	4.38
White	4.37	4.63	4.38	4.86
			F	p
Race			5.32	.02
Experience			1.28	.28
Interaction			1.48	.22

C. Dependent Variable Name: Teachers' Inability to Teach Well

	<5 years	6-10 yrs	11-20 yrs	21-30 yrs
Black	3.56	4.30	4.52	4.38
White	4.47	4.47	4.14	4.57
			F	P
Race			.472	.49
Experience			.524	.66
Interaction			2.63	.05

D. Dependent Variable Name: School's lack of Responsiveness

	<5 years	6-10 yrs	11-20 yrs	21-30 yrs
Black	3.56	4.36	4.38	4.38
White	4.53	4.53	4.20	4.86
			F	P
Race			2.42	.12
Experience			.95	.41
Interaction			2.20	.09

E. Dependent Variable Name: Lack of Parent Involvement

	<5 years	6-10 yrs	11-20 yrs	21-30 yrs
Black	3.44	4.27	4.29	3.86
White	4.58	4.53	4.40	4.71
			F	P
Race			7.59	.007
Experience			.50	.68
Interaction			1.87	.13

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Chapter Six

Parent Involvement and School Improvement

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Parent Involvement and School Improvement

Outline

Introduction

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Introduction

The Title I Elementary School's Education Act (ESEA), which historically has been a major funding source for inner-city and minority schools, requires parental involvement as a condition of funding (Title I Regulations, 1972). This mandate is usually fulfilled by having a few parents attend PTA meetings, come to see their child in a play, or more negatively, the parents of "problem children" being invited to speak with the teacher or principal about the students. Even taking these routine encounters into account, a comprehensive study of 600 elementary schools in Maryland by the Johns Hopkins Center for Research on Effective Schooling for Disadvantaged Students found that more than one-third of the parents did not have a single parent-teacher conference within the past year (J. Epstein, 1982). Two out of three parents had not even been in phone contact with their child's teacher. Parent involvement was greatest in the primary grades, with contact abruptly plummeting after the fourth grade. Parental involvement is the most rare for minorities and low-income families. Paradoxically studies have shown that this constituency could benefit the most from parental involvement in the educational process (Walberg, 1984). While most research has affirmed the opinion that the involvement of parents in the child's schooling is advantageous to the educational process (Bronfenbrenner, 1974, 1979; Lightfoot, 1978; Hess and Holloway, 1984; Hobbs, et. al. 1984), few are certain exactly how to deal with the accompanying complex issues and barriers.

Issues of Parental Involvement

Several major issues are related to parental involvement in education. While there exists great potential for gain with parental participation, there are many negatives included with this course of action. Every advantage has a potential draw-back.

Changing Trends and Family Lifestyles

Today, fewer than ten percent of the population fit the 1950's family stereotype of having two children, the father working, and the mother being a full-time housewife. The fact is, that even in that early period this "typical American family" was still more of an middle class ideal than the norm for most of the country's inhabitants. This is especially true for the Black population who in 1940 had 39.4 percent of their families with women working part-time or fulltime compared with 25.6 percent for White women (U.S. Bureau of Census). By 1980, female labor force participation had increased to 49.4 percent for Whites, and to 53.3 percent for Blacks. In 1984 according to Census data 43 percent of all Black families were headed by women, while for Whites the number was a smaller 13 percent.

The situation is not only different today, it is still changing rapidly. Consider the following statistics:

1) By 1995 more than three out of every four school-age children, and two out of every three preschoolers will have mothers in the work force.

2) 71 percent of the employed mothers with school age children, will work fulltime.

3) 59 percent of the children born in 1983, will live with only one parent at some time before their 18th birthday.

4) Somewhere between 25 and 33 percent of children under the age of 13 are left home alone to take care of themselves, during some part of the day.

5) Nearly one child in four lives below the poverty level, and children under five years of age constitute both the fastest growing, and highest percentage of those living in poverty (Steinberg, 1988).

While these concerns apply to all of the U.S. populations, minorities (particularly Blacks) face a different set environmental forces. Take for example the fact that:

1) The Center for Disease Control reported that in 1990, 4,173 U.S. teenagers were killed by guns.

2) For Black males ages 15-19, the rate of gun-related death is 11 times higher than for White males of the same age range.

3) Poor children drop out of high school at over twice the rate of the non-poor. (Schiller, 1984).

4) In 1984, the average Black college graduate earned $18,677 which was less than a White high school graduate (Schiller, 1984).

5) In 1981 there were only 86 Black men for every 100 Black women in the 25 to 44 age group. For Whites the ratio was 100 to 100 (Darity and Myers, 1983).

6) While 80 percent of all Black families with incomes below $4,000 were headed by women, only 8 percent of the Black families with incomes above $25,000 were headed by women (Wilson, 1987).

7) Only a minority of non-institutionalized Black male youth are employed: 16 percent of 16-17 age group, 34 percent of 18-19 age group, and only 58 percent of the rest of the population are employed.

Hence, whether a child lives in a upper middle-class suburb, or in the decaying inner city, most probably no one will be home to meet them at the front door when they return home from school. "Latch-key kids" are a ubiquitous phenomenon. Many parents may be busy toiling at an increasingly tenuous job, and are frequently too focused on being able to pay the rent or mortgage to worry about the particulars of their child's school day. Many assume (particularly minority parents) that if they deliver a healthy, loved, appropriately dressed child punctually to the school door, they have fulfilled their parental duties. It is then the federal, state, and local tax financed job of the teachers and principals to educate the children. Also, many Black children are busy raising the smaller children, cleaning the house, cooking and doing other adult work to help their parents make ends meet.

Staff Barriers

Increasing parental involvement should also be looked at from the teacher's perspective. Research has shown that with respect to increased parental involvement, teachers are concerned about the amount of additional time needed to prepare workshops, develop directions for parental home supervision, and coordinate other related activities (Epstein and Becker, 1982). Some teachers have had bad experiences in their previous limited attempts at parental contact, and are reluctant to try to work with parents again. The critical issue for many becomes "what's in it for me". Teachers ask whether the additional time and trouble, (without additional compensation) is worth the effort to volunteer their time without knowing the likely benefits. If a teacher has only one class and telephones 30 parents once a month, averaging 15 minutes a call, this would require more than five hours, not including preparation time for each individual parent.

Authority is also a big factor. For example, when parents are given teaching instructions and materials the teacher shares a portion of his or her teaching authority. New attitudes, behaviors, and communication patterns are needed to coordinate these new activities. The biggest staff barrier to parents is frequently the school principal. Winters and Schraft (1977) succinctly describe the situation.

> Most experienced school principals will say: "Of course parents are welcome here". Implicit in that is that parents are welcome on the principal's terms. The mixed feelings of most schools are reflected in the proverbial sign that is posted over most of the school's entrances."VISITORS ARE WELCOME. PLEASE REPORT TO THE PRINCIPAL'S OFFICE." (Ibid p.11).

Many principals view parental involvement as just another time consuming hassle to add to already burdening administrative and paperwork requirements. Increasingly in the inner cities, school principals must commit increasing time and manpower to the maintenance of school security.

In their survey of 3,700 teachers in about 600 schools in Maryland, concerning teachers' opinion of parent involvement, Epstein and Becker (1982) outlined eight issues which need to be researched more:

1) "Of all the types of parent involvement, supervision of learning activities at home may be the most educationally significant,...and can involve many or all children's parents."

2) "We need information on the kinds of tutoring or supervisory skills all parents can learn quickly".

3) "The attitudes, training, and experience of individual teachers have a lot to do with whether they choose to develop a parent-involvement programs".

4) "Which parent roles are most effective for what kinds of situations, skills, and students"?

5) "How can parent-involvement programs take into account the special needs of each student, so that time at home can assist each student's learning"?

6) "What are the changes in the teacher's role that occur under different parent-involvement techniques"?

7) "We need to know how parent involvement can be organized so that the responsibilities and goals of teachers, parents, and students are clear and attainable".

8) "One of the reasons so many teachers and principals conduct and support visit-school nights and parents' conferences is that these activities have become formal, accepted strategies for parent-teacher exchanges.... In contrast, the techniques of parent involvement in learning activities at home are classroom-level projects that are developed by individual teachers. The pattern of exchange for these activities have not been standardized and so there are no clear expectations".

Homework

The area of parent participation that produces the least anxiety for teachers is that of homework assignments. Almost all teachers would encourage parents to monitor their child's progress through homework, as well as motivate, encourage, and discipline their study habits with it. Studies show that the average U.S. high school student spends four hours a week doing homework, and 30 hours viewing television (Walberg and Shanachan, 1983). Research has also shown that ungraded homework is only half as effective as teacher graded work (Paschal, Weinstein, and Walberg, 1983). In an informal meta-analysis of 15 empirical studies of homework, it was found that the assignment and grading of work done at home produces an achievement effect that is three times greater than the influence of family socio-economic status (Walberg, 1984).

School-parent partnerships may offer a mechanism to take the policy advice of this research. One such successful example is Chicago's Grant School with Operation Higher Achievement. Parents pledged to provide a quiet well-lit study area (often difficult in the ghetto), to monitor and encourage the child, and to cooperate with teachers in the areas of homework, discipline, and school attendance. Another successful collaboration is the Baltimore School and Family Connections Project, coordinated by Joyce Epstein and Susan Herrick of the Johns Hopkins Center for Disadvantaged Students (Herrick and Epstein, 1991). Elementary school parents were given a set of reading activity packets designed to help their children practice critical reading skills throughout the year. Results indicated that the packets increased parent involvement in their child's homework. Sixty percent of the parents reported that they worked together with their children on the packet, while 17 percent said their child worked with someone else. Children who worked with a parent completed more activities than those who worked alone. Students with working mothers did not differ from children with mothers at home fulltime.

The School of Development Program Parent Program

Parent Involvement in the School Development Program occurs at three levels. The first level of involvement includes participation and support of such activities as attending parent-teacher conferences, supporting school events, and monitoring children's homework and class progress. The second level requires active daily participation in school. This usually takes the form of various parent volunteer programs, or parental part-time employment. At the highest level of parental involvement, parents play a part in school decision-making and management as members of the SPMT.

Table 1 illustrates the different levels of the Parent Model in the form of a pyramid. Level 1 is the broadest part of the structure with the greatest breath in parent participation. The goal of this mode of participation is 50 to 100 percent of the parent body. The planned activities are more conventional (meetings, open house, pot-luck dinners), and are intended to be very general and inclusive, while not demanding too much of the parent's time. The next level of participation will not include as many parents. Fewer parents are willing and able (maybe 10 to 50%) to give the time and effort necessary for direct involvement in daily school affairs. Being a monitor on field trips, or volunteering for the school library are common examples of this involvement level. At the smallest part of the figure, is the most complicated participation level. A small, critical portion of the parents (one to ten percent) collaborate with the school staff in the determination of school policy.

A PYRAMID OF COLLABORATION

Level I

Broad Based Parent Participation

From 50% to 100% of the parent body can be included in activities such, as general meetings, social events, report card conferences, fairs fund-raising endeavors, special workshops and pot-luck suppers. A structured parent-school organization plans the activities.

Level II

Parent Involvement in Daily School Affairs

The transition between participation and policy determination occurs at this level and will draw anywhere from 10% to 50% of the parent body. Parents provide direct service by helping with field trips, hobby groups, playground supervision, or serving as library aides, tutors, etc.

Level III

Parents and Staff in Policy Determination

Includes parents in governance. Given ESEA funding mandates, many schools try involvement at this complicated level. Includes one to ten % of parent body.

Empirical Study

Questionnaires were administered to 144 of the school staff in three elementary schools in a Southern California school district. The staff was questioned about their opinions of parental involvement, community relations and different dimensions of school climate. The data was analyzed to determine whether differences existed in attitudes by staff demographics, and to determine which other factors are related to parent involvement and community relations.

Sample

The sample was composed of 144 staff members from three schools with a fairly equal distribution of respondents from each school: School 1 (29%), School 2 (42%), and School 3 (29%). Most of those answering were women (82%), and one half were classroom teachers (50%). The remaining staff members included administrators (4%), support staff (9%), and other paraprofessionals (37%). Ethnically, a slight majority of the sample was White (51%). The next largest groups were Blacks (23%), Latinos (16%), and Asians and other groups (10%). Sixty-five percent taught only one class. The average staff member had a median of 4.4 years in their present position, although most had only been working at their present occupation for only one year. The situation was the same for the variables dealing with the number of years working in the same place: mean=6, mode=1. Thirty-seven of the respondents were members of their schools' Planning and Management Teams, 13 were members of the Mental Health or Student Support Teams, and 47, (almost one in three), were part of the PTA/PTA/PTSO.

Methodology

All analysis was done using SPSS-PC 4.0 on a personal computer. Group differences in scales were determined by the analysis of variance test, (ANOVA) with

Scheffe contrasts. Correlations among scales were done with pearsons correlation coefficients.

Analyses

Four scales related to parents were contained in the inventory: the Parental Volunteering Scale, the Parental Involvement and Home-School Relations Scale, the School Community Relations Scale, and the Parental Contact Scale. These four scales were then used as the dependent variables in several ANOVA procedures. The demographic categories of interest included the staff position (classroom teacher/non-classroom teacher), ethnicity, number of classes taught, membership in school organizations, and gender of the respondent.

Results

There was no difference between teachers and non-teachers on the Parental Volunteering Scale, and the Parent Involvement Scale. Significant differences were found for the two other scales. Non-teachers had higher school-community relation scores than classroom teachers (14.4 vs. 13.6). This is probably because non-teachers are more likely to live in the community where the school is located. The difference was statistically significant at the .05 alpha level (F=4.9, df=1,124).

Bigger differences existed in the area of parental contact. The Parental Contact Scale score of teachers (6.1) was almost twice that of their counterparts (3.5). The difference is of course very statistically significant (F=34.5, df=1,125; p<.00001).

No ethnic differences were found for any of the scales used here. Ethnic differences are probably more likely to occur in the parental population than with the school staff who all have the same education background, and school-community experiences. This is probably analogous to the police-community relationship.

Those whose taught only one class did have slightly more parental contact (5.3) than those who taught two or more classes (4.1). This was significant at the 95 percent confidence level (F=4.4, df=1,114).

Members of Planning and Management teams reported higher parental involvement scores (24.2 vs 23.1) and higher parental contact scores (5.8 vs 4.6) than non-members. Both of these differences are statistically significant at the .05 alpha level. The same pattern holds for both members of Mental Health teams, and members of the school-parent organization. Both parental involvement, and parental contact are higher for members of these groups. This phenomenon is also a function of how long a staff member has been based at their present school. Members of the PTA for example have been based at their present school for 10.8 years, while non-members had 6.9 years of experience. Gender differences were found on the Parental Volunteering Scale (F=8.6, df=1,125; p<.01) which show female staff having more experience with parents volunteering to help at school. This difference exists because most parental volunteering is related to classroom activity, and the overwhelming majority of classroom teachers are women, giving them greater opportunity for the experience. The other gender difference was parent involvement (F=5.2, df=1,118; p<.05). Males showed slightly higher scores (24.7) on the Parental Involvement Scale than females (23.1).

Relationships

Correlational analysis was conducted using the Parent Involvement variables as the dependent variables, and the school climate variables as independent variables. The Parent Involvement and Home School Relations Scales was found to positively correlate with several variables. Parent Involvement was highly correlated with the Caring and Sensitivity Scale (r=0.64,p<.0001); the Order and Discipline Scale (r=0.54,p<.0001), the Collaboration and Togetherness Scale (r=0.80,p<.0001); and the Staff Job Satisfaction Scale (r=0.33,p<.01). School Community Relations was directly related to Parent Involvement (r=0.71,p<.0001); Order and Discipline (r=0.42,r=.001); Togetherness (r=0.65,p<.0001); Achievement Motivation (r=0.60,p<.0001); Innovation (r=0.26,p<.05); Fairness (r=0.39,p<.01) and General School Climate (r=0.73,p<.0001). The two remaining parent scales in the instruments, Parental Contact, and Parental Volunteering were not correlated with any of the other school climate measures. They were however, mildly related to each other ($r=0.31, p<.05$). Also, Parental Volunteering was positively correlated with the number of year experience the staff member has in that particular position ($r=0.27, p<.05$).

Parent's Perspective

During a structured interview session, a parent participant from a New Haven elementary school spoke of her involvement with the School Development Program. A single parent with four children, `Mrs. Smith' became involved with the parent program at the request of the principal:

> The principal kept talking to me - she asked me questions about myself, you know, like what I was able to do - if I had skills. Well, I had office skills, so she asked me if I would help out in the office. I did it for awhile. Then, a job came up in the Writing To Read program and I applied and got the job. So I started working in the school.

Willingness of the principal to creatively involve parents in the schools is vital to the success of the parent program. The principal of this New Haven elementary school was asked how parents were identified to function in various capacities within the school:

> Parent identification is a process - we treasure the quality of people's lives. I refuse to let anybody not treasure that. So, we view ourselves as a family. Parent involvement is not the volume of parents of involved - it is developing smaller groups of parents who take on and train other groups and the cycle of involvement will continue that way.

The parent interjected:

> Yes, the principal sees the parents as resources and helps them reach potential. The parents model behavior for other parents. The principal is like a mentor - she encourages growth.

The interviewer asked the parent: "How or what would you say you have gained since working in the schools?"

> My involvement with my own children. My participation in schools gave my children a more secure foundation. It helped me to spend more time with my kids. They know would know everything they do in school. I know all their teachers.

The principal interjected:

> It helps with organization in her own life - how she structures what she does - she structures time better. This is important - I have seen Mrs. Smith grow. When she first started, she was all over the place - now she's very organized. This is important because kids need structure. We must remember that the child's first teacher is the parent. We are all parents first. We must continuously educated parents about their responsibility. The staff here takes a lot of time with parents. Yes, Mrs. Smith interjected. Parents pull from their own resources to train others - we try to set an example. We do training on stress management, being a single parent, how to work with teachers what to wear in class, self esteem, and job training.

How has this helped you?

> Years ago, I worked as a personnel technician. Since being involved in schools, I researched and developed other skills.

How do you convince other parents to get involved?

> Very easily. You have to believe it yourself, we knock on doors to talk parents -you have to reach out and be sincere - and you have to find a place for everyone. There is something for everyone to do. No matter what your socio-economic status, you have something to give. Now, about 5 parents have their own day care centers, 2 or 3 got their degree, others got their GED. I will complete a degree in business in about 1 year.

Do you think you would have been involved if the principal hadn't reached out to you?

> No. I would have done something, but not like I am now. I've been involved for 5-6 years.

Describe your experiences in a few short sentences

I love every child in this school - they are so important. They love it when they know you love them. This has been the best time of my live. It added so much to me. It allowed me to grow in so many ways - personally and career-wise. All the ups and downs were worth it. My children have benefitted. Children are reaching for goals -- that means everything to me. This is the best school in the city -- in the country.

Have you seen any changes in the community since you have been involved?

Yes, the neighborhood is clean; there are no fights around the school, no graffiti on the wall. We teach pride and respect - the community looks out for the school - they value the property. The school is like a safe haven. Kids don't want to leave.

How do you as a parent work with parents from other racial backgrounds?

When you're speaking about children, its not a matter of race. Every parent has the same concerns:

-is my child happy?
-is my child safe?
-is my child learning?
Caring doesn't have color.

Policy Recommendations Concerning Parental Involvement

Closing the gap between the social, academic and psychological atmosphere at home, and the atmosphere at school is especially important for the Black child. With effective parent involvement, this gap can be eliminated without the possible harmful effects of cultural conflict and marginality. Low income children are especially likely to benefit from this type of intervention. The policy implications of the parent-teacher relationship are given below:

Policy Recommendations

A. Recommendations for Schools of Education

(1) Incorporate a course of parent involvement in preservice and inservice teacher education programs.

(2) Train administrators in the parent involvement processes.

(3) Teacher education programs should provide early exposure to school sites and the role of parents in the school.

B. Recommendations for Politicians and Governing Bodies

(1) Gain an appreciation of the impact of parent participation in schools on staff, parents, and students by studying exemplary programs.

(2) Provide incentives for establishing and maintaining parent involvement programs.

(3) Offer required courses in parenting and parent advocacy techniques for senior high school students.

C. Recommendations for School District Practitioners

(1) Develop and adopt a theoretical perspective regarding home/school relations applicable to diverse conditions and groups.

(2) Train administrators and teachers in parent involvement processes...

(3) Promote inservice programs of parent education and support, utilizing existing staff where possible.

(4) Develop programs to inform parents of effective discipline methods and techniques...

(5) Encourage volunteerism by parents in school programs, but within well-defined guidelines consistent with school objectives and goals.

D. Recommendations for the General Public

(1) Stress the value of community involvement -- the need for business, health, religious, and other groups to support school programs.

(2) Identify current causes of school/community isolation and conflict and develop intervention and preventive programs.

E. Recommendations for Evaluators

(1) Develop evaluation programs geared to inform parents about the value of participation in the education process and to inform school staff about the value of parent participation.

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Chapter Seven

Self-Concept As A Mediator of School Climate Effects

By

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Introduction

Although behaviorists led by J. B. Watson and B. F. Skinner have studied behavior mainly from a stimulus-response perspective (Bijou, 1985; Thomas, 1985) their theory has proven inadequate for the explanation of complex human behavior. But almost from its inception, psychology has been the study of behavior from the cognitive viewpoint, a perspective that has regained respectability in the academic world. As is shown below, from early to current writings, theories of self-concept have been inextricably entwined with theories of motivation and behavior, that in turn have been linked to achievement. Many educators (Felson, 1984; Marsh, 1990; Newman, 1984; Shavelson & Bolus, 1982) have researched the effect of self-concept on achievement but few have examined the mediating role that self-concept may play between school climate and achievement.

As part of on-going research on the impact of school climate and self-concept on school performance, the purpose of this paper is to propose, estimate, and test a causal model of school-related factors hypothesized to affect student academic achievement with particular emphasis on the mediating role of self-concept. The model is based on the theoretical framework that undergirds the Comer School Development program (Comer, Haynes, Hamilton-Lee, 1987), and synthesizes aspects of field theory, social adjustment theory, ecological systems theory, and management systems theory. The main null hypothesis is: There will be no systematic pattern of relationships among the latent variables school climate, classroom climate, self-concept, behavior, and achievement. The hypothesized causal relationships specified through the structural equation model state that the exogenous variable school climate has both a direct, and a mediated (through classroom climate) effect on self-concept and behavior, and that the effect of school climate on achievement is completely mediated by classroom climate, self-concept, and behavior. Support for the hypothesized structural equation model (SEM) will be given by a goodness of fit test of the measurement model, and by the significance of paths specified in the structural model. Figure 1 illustrates this model.

Literature Review

McDavid (1985) places the origin of self-concept at the beginning of the conceptualization of a theory of personality, and traces its development through Rene Descarts' "cognito", and Sigmund Freud's "ego", to William James' "self". But Carl Rogers and Prescott Lecky are credited with elaborating the theory of self-concept (McDavid, 1985). James (1984) wrote about the known self that included a person's physical body, family and friends, belongings, and everything the individual claims as his or hers. He distinguished between the material self, the social self, and the spiritual self, and noted that there were feelings and emotions associated with the self; and that behavior can be understood in the context of "self-preservation" (reflex actions to preserve life) and "self-seeking" (purposeful behavior directed toward self-fulfillment).

Rogers (1951) believed that individuals live in a world centered around them. That this private, experiential world is mostly unconscious, and that what is known of this private world can only be known by the individual. He stated that people react to experiences as they perceive them, not to some objective reality; that they react as entities -- on both a physiological and psychological level, to their experiences; and that the basic drive of individuals is to maintain and fulfill themselves. Psychologists agree (Duval & Wicklund, 1972; James, 1984;

Oosterwegel & Oppenheimer, 1990; Roger, 1951; Snygg & Combs, 1949) that perceptions of self result from interaction with the environment. Snygg and Combs (1949) outlined ways in which schools can structure the environment to enhance student self-concept, noting that providing opportunities for students to experience success in a climate of mutual respect, cooperation, integrity, free expression, and the valuing of student aspirations and achievements, should lead to "adequate" self-concept in pupils.

Finally, Wicklund and Eckert (1992) distinguished between the self and self-knowledge. They stated that individuals may exhibit qualities such as patience, but may not perceive themselves as patient people; and that the reverse may be true. They defined the self as "behavior potential", stating that individuals may have the potential for acting in certain ways but may not know that they have these potentials. Self-knowledge is therefore what individuals know about themselves. This discrepancy between the self and self-knowledge could contribute to imprecision in the prediction of behavior from self-report data such as those used in this study, but for now it is the most economical and according to Snygg and Combs (1949), the only reliable way to measure self-concept because no one is privy to the individual's frame of reference for behavior.

School Climate and Self-Concept

Literature on self-concept as a mediator of the effect of school climate on student performance is sparse. This mediation can be inferred by examining the link between school climate and self-concept, and between self-concept and achievement. Research on the effects of school climate on self-concept is scant, despite its being considered "an important outcome of education" (Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, & York, 1966, p. 281), and the finding that low "self-esteem" (used interchangeably by Coleman et al. with self-concept, and defined by academic self-concept items) reported by many students in the Coleman study was clearly in part affected by the experiences of these children in the school environment (Coleman et al., 1966). Although some researchers (Brookover, Beady, Flood, Schweitzer, & Wisenbaker, 1977; Coleman et al., 1966) found a great deal of within school variation in individual self-concept, others (GrÖbel & Schwarzer, 1982; Hoge, Smit, & Hanson 1990) also reported a school climate effect on student self-esteem. In a longitudinal study of more than 2,000 fifth and eighth grade students in Germany, GrÖbel and Schwarzer (1982) found that the perception of school climate had a "major" influence on the self-esteem and anxiety of students. Hoge, Smit, and Hanson (1990) in another longitudinal study, this time with U.S. students, with a similar sample (sixth and seventh graders), also reported significant effects of school climate on student self-esteem and academic self-concept.

Classroom Climate and Self-Concept

The Rist (1970) study, which related teacher expectations to student behavior and achievement, implied that the relationship between the climate of the classroom (expressed through differential patterns of inter-personal interactions between teacher and students, and among students), and student outcomes is mediated by student self-perceptions. These self-perceptions themselves result in part from the interactions among teachers and students in the classroom. But little research is available on the effect of classroom climate on student self-concept. Other researchers (Brophy, 1983; Brophy & Good, 1970) have explicitly stated that the effect of teacher expectations on student behavior and achievement is mediated in part by the influence of the classroom manifestations of these expectations on student self-concept. Proctor (1984), commenting on the consistent link reported between teacher and student expectations noted that

> [t]he consequences of differential expectations for students in terms of learning opportunities and self-expectations appear to be the intermediate links between student-teacher interaction patterns and academic achievement (p.472).

Another hint of the relationship between classroom climate and self-concept is contained in Adam, Shea, and Kacerguis' (1978) review of the literature on the psychological and social effects of schooling on students. They found that teachers could modify aspects of the classroom to improve student self-concept.

The classroom climate to self-concept link is found in other research reports. Bailey, Madonna, Wesley, and Anderson, (1987) examined the relationship between fourth and fifth grade students' perception of classroom environment and self-concept. They found significant relationships between the total score on the Piers-Harris Children's Self-Concept Scale (Piers & Harris, 1969) and four sub-scales of the Classroom Environment Scale (Trickett & Moos, 1974): Involvement, Affiliation, Teacher Support, and Order and Organization. The Piers-Harris was also found to be significantly related to the Relationship dimension of the Classroom Environment Scale.

Van-der-Sijde (1988) reported significant relationships between self-concept, referred to as self-images, and aspects of classroom climate. Using the class as the unit of analysis, he found that self-concept was positively related to Teacher Support and Task Orientation, but negatively related to Teacher Control and Order and Organization. Stipek and Daniels (1988) reported that classroom environment affected the competency evaluation of kindergarten children but not of fourth graders. Madonna, Bailey, and Wesley, (1990) examined the extent to which classroom climate and locus of control would differentiate between high and low self-concept in fourth and fifth graders. They concluded that classroom environmental factors, in combination with others, were important for identifying the self-concept of elementary level school children.

Finally, Gurney (1987) in his review of "well-controlled" experiments in enhancement of students' "self-esteem" (Gurney uses the terms self-concept and self-esteem as synonyms as evidenced by the self-percept measures and terminology used in the studies selected for review) in the classroom, noted that aspects of the classroom, including patterns of teacher interactions with students, and teacher demonstration of high self-esteem, can affect student self-concept.

Self-Concept and Behavior

The central notion in many theories of self-concept stated Jordan (1981), is that general self-concept "is a critical factor in determining human behavior" (p.509). Many of these theorists (Combs & Snygg, 1959; Hayakawa, 1963; Rogers, 1951; Snygg & Combs, 1949) noted that the behavior of an individual is consistent with that person's self-perception, regardless of whether or not this perception matches "objective reality". Rogers (1951) set forth a nineteen-proposition theory of personality and behavior, in which he considered self-perception the central causal agent of behavior. To Combs and Snygg (1959) an individual's thoughts and behavior are determined, to a large extent, by that person's self-beliefs and perceptions of self-capabilities. To Hayakawa (1963) "the fundamental motive of human behavior is... the presentation of the symbolic self" (p.37). Scheirer and Kraut (1979) noted that Mead and Cooley, followed by symbolic interactionists hypothesized,

> that a positive self-concept will lead to constructive, socially desirable behavior, and conversely, that a distorted self-concept will lead to deviant, socially inadequate behaviors (p.131).

According to Jordan (1981), the influence of self-concept in directing behavior has been considered motivation, and the differences in human behavior due to variations in individual general self-concept.

The self-awareness theory posited by Duval and Wicklund (1972) proposed circumstances under which the effect of self-concept on human behavior is likely to be strongest. They stated that self-concept mediates behavior when people are conscious of themselves, and have standards for behavior in the given situation. Hormouth (1990) noted that there was much research to support the hypothesis that people's behavior are guided, when they are self-aware, by their self-perceptions and the standard of behavior they hold in a given situation.

The Reed (1987) study also supports the theory of self-concept as a mediator of behavior. In an examination of the correlates of truancy at a suburban high school, Reed (1987) found that students' general feelings about school was not related to truancy or unexcused absenteeism, but that self-concept about academic ability was a significant predictor of truancy.

Self-Concept and Achievement

Conventional wisdom suggests that a link be made between what people think of themselves, and the way in which they behave. In the late nineteenth century, William James (1890) espoused the notion that an individual's self-opinion will have a strong impact on that person's decisions and actions. Self-concept theories (Combs & Snygg, 1959; Cooley, 1902; Hayakawa, 1963; Rogers, 1951; Snygg & Combs, 1949) emphasize the powerful influence of self-concept on human behavior. This has been extended by educators who postulate a self-concept to achievement link (Wylie, 1979), and who attempt to increase achievement by improving self-concept (Scheirer & Kraut, 1979).

Reviews of studies researching the link between self-concept and achievement emerge periodically. In one such review, Wylie (1961) reported that although the results of the few studies researching this link was not conclusive, it would be valuable to explore the relationship between self-concept and learning, because there appeared to be some connection between the two. After reviewing studies on self-concept and achievement published between 1960 and 1970, Purkey (1970) concluded that, "academic success or failure appears to be as deeply rooted in concepts of the self as it is measured mental ability, if not deeper." (p.14).

He noted that the body of evidence in the studies reviewed indicated that perceptions of self and the world were strong influences on achievement in the basic subjects. Purkey (1970) also reported a stronger relationship between self-concept and achievement for boys than for girls. He cautioned, however, about interpreting the relationship between self-concept and achievement as uni-directional, noting that it may be reciprocal or caused by a third, as yet unknown, variable.

Much of the research done on self-concept and achievement has been correlational. In his review of 289 studies of the competence and effectiveness of teachers, Medley (1977) found covariation between improvement in pupil self-concept and achievement in 75% of the cases in which these data were reported. In a study of high school students in Western Montana, Lundt (1988) reported a strong positive relationship between educational aspirations, an indicator of self-concept, and academic achievement. The often-cited meta-analysis by Hansford and Hattie (1982) summarized the results of 128 studies, and highlighted the difficulties and contradictions, the strengths and weaknesses present in research in this area. Using 1,136 correlations between self-ratings and measures of performance, they obtained the following results. The range in the relationship between self-concept and performance was -.77 to .96. The mean relationship was calculated to range from .21 to .26, or to put it another way, the mean shared variance between self-concept and performance or achievement was between 4 and 7 percent (Hansford & Hattie, 1982). Some of the problems they highlighted were: (a) reliabilities were not reported for 89% of the self-concept measures, (b) the measures varied widely in terms of reliability (.36 to .93) when reported, and with respect to number of items, (c) lack of standardization of terminology for self-concept (fifteen different terms were used among the studies), (d) inadequate psychometrics and lack of standardization of self-concept measures (fifty-eight different measures were used), and (e) inconsistency of findings with respect to the relationship between self-concept and performance.

Other results included (a) that teacher ratings and grade point averages tended to have higher correlations with measures of self-concept, than published tests with good psychometric properties (except ITBS) did; and (b) studies of higher quality, studies reporting reliabilities, and studies using samples that were nationally representative, tended to report lower correlations. There were no differences in the relationship between self-ratings for males and females, or between self-ratings and achievement for the terms self-concept and self-esteem. What Hansford and Hattie (1982) concluded was that it was possible for a researcher to obtain the desired outcome by selecting self-concept and achievement measures with certain properties, and a sample with particular characteristics. The properties and characteristics for the desired results are outlined in the discussions section of their paper.

Another factor that heightens the probability of significant self-concept and achievement correlations is the specificity of the self-concept measure. A cursory examination of the literature showed that in most cases, the correlation was significant when academic self-concept or self-concept related to the particular subject area was used (Jordan, 1981; Marsh, 1986; Marsh, Byrne, & Shavelson, 1988; Marsh, Parker & Barnes, 1985; Mboya, 1986), but not when a general measure of self-concept was used (Jordan, 1981; Mboya, 1986; Williams, 1973).

One set of studies (Caslyn & Kenny, 1977; Pottebaum, Keith, & Ehly, 1986; Watkins & Astlla, 1986) used cross-lagged correlations to estimate whether self-concept influenced achievement or vice-versa, and to what extent. Caslyn and Kenny (1977) did not find support for a self-concept to achievement direction of causation, but found support for academic achievement causing self-evaluations among females. Pottebaum, Keith, and Ehly (1986) found no support for a causal relationship between self-concept and achievement. They suggested that a third variable or variables, not now known, may be the cause of both. Watkins and Astilla (1986) found inconsistent results with respect to a causal relationship between self-concept and achievement. They reported that for boys, the data "favored" a self-concept to achievement link, whereas for girls, the data favored an achievement to self-concept direction.

Another group of studies (Felson, 1984; Marsh, 1990; Maruyama, Rubin & Kingsbury, 1981; Newman, 1984; Song & Hattie, 1984) used structural equation modeling as their method of analysis. Song and Hattie (1984), with a sample of over 2000 Korean adolescents, found support for academic self-concept affecting achievement, and for academic self-concept mediating the effect of home environment on achievement. Newman (1984) reported that mathematics achievement influenced later mathematical self-concept but at no time did mathematical self-concept influence later achievement. Using a "large national sample of high school boys", Felson (1984) found that self-appraisals of ability had what he termed moderate effects on later grades. Maruyama, Rubin, and Kingsbury (1981) found that ability and social class strongly influenced both self-esteem and achievement, but that there was no relationship between self-esteem and achievement. And to complete the confusion, Marsh (1990), using a sample similar to Felson's (1984), found that academic self-concept measured the previous year significantly affected achievement in Grades 11 and 12, but that previous achievement had no effect on subsequent measures of academic self-concept.

As Byrne (1984), and Rogosa (1980) noted, methodological problems accompanied the search for causal analyses using correlational data. These problems led Byrne (1984) to state that conclusions concerning the "causal predominance" of self-concept and achievement drawn from extant research literature would be unwarranted.

Using Byrne's (1984) criteria for methodological soundness, Marsh (1990) found six studies in which causal models specifying the relationship between self-concept and academic achievement were tested (Byrne, 1986; Felson, 1984; Marsh, 1987; Maruyama, Rubin & Kinsbury, 1981; Newman, 1984; Shavelson & Bolus, 1982). However, the results of these studies varied widely, reinforcing the mixed findings of the Scheirer and Kraut's (1979) meta-analysis of studies designed to improve achievement through self-concept enhancement.

However, few people will dispute the statement that children develop self-concept before coming to school. They think of themselves as learners before they step into a classroom. Their self-concept may be unstable but it is present. It is then reasonable to assume that self-concept precedes academic achievement, although the relationship between the two soon becomes reciprocal.

Methods

Sample

The sample used consisted of 127 third, fourth, and fifth grade students from eleven elementary schools in a Southern city. These schools are all participants in the Comer School Development Program. The sample was determined by random selection stratified by classroom. The surveys were administered to 235 students, but the removal of those with missing data and of the outliers resulted in a final sample of 127.

Data Collection

The survey data--school climate, classroom climate, and self-concept--were collected in March 1991. Concurrent data for achievement and behavior were obtained from archival records in the spring of 1991. The *Iowa Test of Basic Skills* (ITBS) (Hieronymus & Hoover, 1985) was administered to students as part of regular school routine in April 1991, about one month after they filled out the surveys. The results of the test were sent to the Yale Child Study Center by the district superintendent as part of an on-going project between that inner city school system and the Yale Child Study Center.

Instrumentation

School Climate was measured with the *Student School Climate Scale* (SSCS) developed by Haynes and Hamilton-Lee (1989). It is a 21-item scale with a 5-point Likert response format ranging from strongly disagree (SD), to strongly agree (SA). Two subscales, Academic Focus and Interpersonal Relationships, derived through content analysis, were examined empirically through a Principal Factor Analysis (PFA). Results of the PFA supported the content analysis, yielding the two expected factors. Cronbach's Alpha was .75 for the 10-item Academic Focus subscale, and .69 for the 10-item Interpersonal Relationships subscale for the study sample.

Classroom Climate: Classroom climate was measured with a modified version of the Short Form of the *Classroom Environment Scale* (CES). The response format is "yes" if the respondents agree with the statement, and "no" if they do not agree with the statement. A Principal Factor Analysis performed to examine the factor structure as it exists within this sample yielded three factors: Factor 1, Task Orientation (6 items); Factor 2, Knowledge and Enforcement of Rules (7 items); and Factor 3, Student Relations (4 items). As shown by the inter-factor correlations, the relationships among the variables were almost orthogonal.

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The correlation between Factor 1 and Factor 2 was .055, between Factor 1 and Factor 3 was .135, and between Factor 2 and Factor 3 was .081. The internal consistency reliability for the factors were: Task Orientation .59, Knowledge and Enforcement of Rules .66, and Student Relations .54. The reliabilities are not high, but moderate reliabilities tend to be characteristic of data from young children.

Self-concept was measured with the *Piers-Harris Children's Self-Concept Scale* (1983). Except for Anxiety, all of the scales are scored in the positive direction, the higher someone's score on the scale, the greater the amount of that quality the individual possesses. For example, respondents with high scores on Happiness perceive themselves to be very happy. However, the opposite is true for Anxiety, the higher the score, the less anxious the individuals perceive themselves to be.

Four subscales of the *Piers-Harris*, Intellectual and School Status, Anxiety, Happiness and Satisfaction, and Popularity, were used as indicators of self-concept.

The duplication of items among these scales was removed through content analysis and reliability estimates statistics. In this sample, the Cronbach's Alpha for the scales were: Intellectual and School Status, 15 items, .75, Anxiety, 10 items, .69; Happiness, 9 items, .74; and Popularity, 10 items, .74. (One item "I sleep well at night" was added to the Anxiety scale because it appeared to be related to that concept, and its correlation with the scale was higher than those of more than a third of the items defining the scale). Table 1 contains the reliabilities for the climate and self-concept subscales.

Table 1. Internal Consistencies of Scales

Scale	# of items	Reliability	Sample Size
Self-Concept			
Intellectual and School Status	15	.75	201
Anxiety	10	.69	204
Happiness and Satisfaction	9	.74	206
Popularity	10	.74	208
Behavior	11	.70	208
Classroom environment			
Task Orientation	6	.59	211
Knowledge and enforcement of rules	7	.66	210
Student Relationships	4	.54	210
School Climate			
Academic Focus and help with problems	10	.75	182
Interpersonal Relations	10	.69	175

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Behavior: The indicators of behavior were absenteeism, (the number of days that the student was absent from school during the school year); suspension, (the number of times that the student was suspended during the school year); and the Behavior self-concept scale of the *Piers-Harris*.

Achievement: Achievement was measured by the *Iowa Test of Basic Skills* (ITBS), total scale scores for reading, language arts, mathematics, science, and social studies.

The Causal Model

The causal model to be tested consists of the structural equation model (SEM) (see figure 1) and the measurement model (MM) (JÖreskog & SÖrbom, 1989) (see figure 2). In depicting the SEM the latent variables are designated by circles. The disturbances of the latent variables, and the paths between latent variables and their disturbances are shown by the arrows connecting them. Straight arrows from one latent variable to another designate hypothesized causal direction. Curved lines with an arrow at each end, connecting two variables, designate covariation between the variables, but do not indicate causation. Variables that are causes of other variables, but are not themselves caused, are termed exogenous variables. These variables are traditionally referred to as independent variables. The effect variables, those that are caused, are called endogenous variables, traditionally referred to as dependent variables. Some variables are both causes and effects; these mediator variables are considered endogenous. The disturbances, termed residuals in regression analyses, represent all causes of the variable not accounted for by the SEM.

By definition, latent variables cannot be directly measured. However, the effects of these variables can be perceived and measured. These effects are termed indicators of the latent variable. For example, students' self-perception of their academic capabilities is an indicator of their self-concept. So are students' self-perceptions of their physical attractiveness, athletic prowess, integrity and verbal skills. Together these various self-perceptions form the overall concept that people have of themselves. The measurement model is composed of the indicators of latent variables, their loadings on (i.e., correlations with) the latent variables, and their error variances. The complete model for this study is shown in figure 3.

As specified in this model, School Climate has a direct effect on classroom climate, self-concept and behavior, and indirect effects on achievement through these three variables. Classroom climate has a direct effect on self-concept, behavior and achievement, and indirect effects on achievement through self-concept and behavior. Self-concept affects achievement directly, and indirectly through behavior. Behavior directly affects achievement. There is a disturbance associated with each endogenous variable. There is no correlation between any two disturbance variables.

Evaluation of the Models

Confirmatory Factor Analysis using maximum likelihood solutions from LISREL VII was used to estimate and test the measurement model. The aim was to obtain a non-significant Chi-square (χ^2) based on theoretically sound modifications. Significance of factor loadings of the indicators on the latent variables were used in conjunction with the sizes of the variance accounted for, to evaluate the value of the indicators. Changes were made based on the modification indices provided in LISREL VII, if these modifications were theoretically sound. Other relevant information from the LISREL solution was also considered. This was done for each grade level. The measurement model was then respecified before the structural equations model was tested.

The causal model was also estimated using LISREL VII employing the maximum likelihood solution. If the path coefficient was significant at $\alpha < .05$, the path was kept. Any paths that were non- significant were tested individually using a χ^2 difference test, where the χ^2 from the specified model was subtracted from the χ^2 of the model with the relevant path specified to be zero. The degrees of freedom from the specified model was subtracted from the degrees of freedom of the deleted path model. The result is a χ^2 difference with one degree of freedom. If this χ^2 is significant, the path is kept.

A Tucker-Lewis goodness-of-fit index was used to evaluate the models. this index has no significance tests. Its interpretation is based on the value derived from the computation of the formula. A value of between .85 and .90 describes a model that is barely acceptable, between .90 and .95 is adequate, and above .95 is good (Kenny, personal communication, October, 1991).

Analyses

Preliminary Analyses

Data were screened for accuracy of input, amount and distribution of missing data, normality, and univariate and multivariate outliers. This screening resulted in the removal of cases with missing data and of outliers. Variables with non-normal distributions were transformed to achieve or approach normality. Preliminary analyses showed very little variance in suspension. This indicator was therefore dropped from further analyses.

Sample Characteristics

There were slightly more females than males, 53.5% and 46.5% respectively, in a sample that was 99% African-American. The ages of students in the study sample ranged from eight to fourteen years, with the mode at 10 with 36.1%. About 83% were between the ages of nine and eleven inclusive. Table 2 contains the distribution of students by age. As shown in Table 3, the representation of students varied by school. The highest percentage came from School 5 with 22% and the lowest from School 11 with 3.1%. The highest percentage of the sample was from grade 4 with 71 (55.9%), followed by grade 5 with 35 (27.6%), and grade 3 with 21 (16.5%).

Table 2. Distribution of Sample by Age

Age	Frequency	Percent
8	6	4.9
9	29	23.8
10	44	36.1
11	28	3.0
12	11	9.0
13	2	1.6
14	2	1.6
Total	122	

Table 3. Distribution of Study by School

School	Frequency	Percent
1	8	6.3
2	9	7.1
3	12	9.4
4	16	12.6
5	28	22.0
6	5	3.9
7	11	8.7
8	10	7.9
9	11	8.7
10	13	10.2
11	4	3.1
Total	127	100.0

Descriptive Statistics on Indicator Variables

As shown in Table 4, grade 3 tended to have lower means on the indicator variables than grades 4 and 5. This trend was expected for the achievement variables, because they are standardized scaled scores reflecting growth in knowledge over the years. This was not expected for the other indicators. The ratings for both school climate indicators rose with grade level; the higher the grade level, the larger the score. The mean for Academic focus ranged from 3.22 for grade 3 to 3.74 for grade 5, and the mean for Interpersonal Relationships ranged from 3.29 for grade 3 to 3.46 for grade 5. On the other hand, the standard deviation decreased with rise in grade level. This means that grade 5 students were more similar in their perceptions of school climate than grades 4 or 3 students were.

The pattern of increased scores with higher grade levels persists in the self-concept indicators. Grade 3 students had the lowest scores, but the scores between grades 4 and 5 were very similar, the same in some cases. Social desirability responding may be one explanation for this phenomenon.

Table 4. Descriptive Statistics on Indicator variables

Variable	Grade 3		Grade 4		Grade 5		Possible Range
	Mean	SD	Mean	SD	Mean	SD	
Academic Focus	3.22	0.885	3.72	0.653	3.74	0.596	1.00-5.00
Interpersonal Relations	3.29	0.774	3.45	0.755	3.46	0.601	1.00-5.00
Task Orientation	1.21	0.264	1.24	0.219	1.27	0.297	1.00-2.00
Knowledge and Enforcement of Rules	1.89	0.135	1.91	0.135	1.88	0.178	1.00-2.00
Student Relations	1.75	0.250	1.82	0.262	1.84	0.219	1.00-2.00
Intellectual and School Status	1.78	0.182	1.84	0.171	1.83	0.150	1.00-2.00
Happiness and Satisfaction	1.79	0.202	1.87	0.229	1.92	0.139	1.00-2.00
Popularity	1.67	0.210	1.72	0.227	1.76	0.178	1.00-2.00
Anxiety	1.65	0.211	1.71	0.234	1.71	0.206	1.00-2.00
Absenteeism	7.86	7.357	8.45	9.782	6.77	6.117	0.00-180
Behavior	1.75	0.193	1.85	0.168	1.85	0.163	1.00-2.00
Reading	102.76	12.743	110.47	12.709	124.63	11.894	

Mathematics	103.52	12.376	117.97	9.664	127.11	8.976	
Language Arts	108.95	15.548	121.01	11.864	133.89	12.297	
Science	99.33	30.067	117.61	23.492	128.40	21.316	
Social Studies	108.67	22.955	118.48	22.09	121.11	22.72	

Analyses for Grade 3

The sample size for grade 3 was very small, only 21, therefore results reported in this study are tentative.

Examination of the correlation matrix. The climate scales are strongly inter-correlated, with coefficients ranging from .67 to .19, most being in the .50s. The self-concept scales are also highly inter-correlated, ranging from .82 to .58. The climate scales, especially school climate, show moderate to strong correlations with achievement. The self-concept variables show even stronger relationships to achievement. Table 5 contains the correlation matrix for grade 3. Whether these correlations translate into causal paths is discussed in the next section.

Table 5. Grade 3 Correlation Matrix

	Focus	Relat	Task	Rules	Frien	Intel	Happy	Popul	Anxie	Ab
Focus	1.000									
Relat	0.512	1.000								
Task	0.521	0.610	1.000							
Rules	0.564	0.337	0.188	1.000						
Frien	0.674	0.530	0.455	0.566	1.000					
Intel	0.180	0.406	0.237	-0.268	-0.076	1.000				
Happy	0.177	0.420	0.069	0.060	0.017	0.742	1.000			
Popul	0.109	0.241	0.344	-0.074	0.003	0.575	0.713	1.000		
Anxie	0.317	0.258	0.168	0.119	0.091	0.590	0.817	0.652	1.000	
Ab	-0.148	0.052	-0.026	-0.131	0.304	-0.080	0.042	0.043	0.010	1.000
Behav	0.262	0.480	0.243	0.148	0.170	0.709	0.790	0.748	0.711	0.001
Read	0.189	0.622	0.378	0.061	0.139	0.626	0.544	0.593	0.388	-0.060
Math	0.392	0.613	0.316	0.231	0.210	0.679	0.730	0.500	0.653	0.103
Lang	0.352	0.744	0.326	0.148	0.281	0.499	0.511	0.366	0.255	0.018
Scien	0.336	0.470	0.167	0.255	0.067	0.449	0.415	0.272	0.272	-0.159
Soc	0.421	0.408	0.220	0.177	0.272	0.390	0.267	0.165	0.217	-0.229

Table 5. Grade 3 Correlation Matrix

	Focus	Relat	Task	Rules	Frien	Intel	Happy	Popul
Focus	1.000							
Relat	0.512	1.000						
Task	0.521	0.610	1.000					
Rules	0.564	0.337	0.188	1.000				
Frien	0.674	0.530	0.455	0.566	1.000			
Intel	0.180	0.406	0.237	-0.268	-0.076	1.000		
Happy	0.177	0.420	0.069	0.060	0.017	0.742	1.000	
Popul	0.109	0.241	0.344	-0.074	0.003	0.575	0.713	1.000
Anxie	0.317	0.258	0.168	0.119	0.091	0.590	0.817	0.652
Ab	-0.148	0.052	-0.026	-0.131	0.304	-0.080	0.042	0.043
Behav	0.262	0.480	0.243	0.148	0.170	0.709	0.790	0.748
Read	0.189	0.622	0.378	0.061	0.139	0.626	0.544	0.593
Math	0.392	0.613	0.316	0.231	0.210	0.679	0.730	0.500
Lang	0.352	0.744	0.326	0.148	0.281	0.499	0.511	0.366
Scien	0.336	0.470	0.167	0.255	0.067	0.449	0.415	0.272
Soc	0.421	0.408	0.220	0.177	0.272	0.390	0.267	0.165

Table 5 continued. Grade 3 Correlation Matrix

	Behav	Read	Math	Lang	Scien	Soc
Behav	1.000					
Read	0.709	1.000				
Math	0.747	0.740	1.000			
Lang	0.580	0.779	0.725	1.000		
Scien	0.632	0.607	0.684	0.749	1.000	
Soc	0.539	0.485	0.508	0.677	0.748	1.000

Table 6. Grade 4 Correlation Matrix

Focus	Relat	Task	Rules	Frien	Intel	Happy	Popul	Anxie	Ab	
Focus	1.000									
Relat	0.479	1.000								
Task	0.094	0.076	1.000							
Rules	0.258	0.146	0.277	1.000						
Frien	0.234	0.331	0.092	0.068	1.000					
Intel	0.213	0.402	0.322	0.150	0.484	1.000				
Happy	0.112	0.137	0.154	0.118	0.400	0.593	1.000			
Popul	0.208	0.170	0.211	-0.106	0.522	0.620	0.617	1.000		
Anxie	0.113	0.235	0.293	-0.097	0.394	0.503	0.405	0.630	1.000	
Ab	-0.022	-0.012	-0.050	-0.192	0.052	-0.204	-0.120	-0.199	-0.086	1.000
Behav	0.195	0.285	0.283	0.281	0.277	0.511	0.397	0.387	0.323	-0.278
Read	-0.027	0.073	.004	0.025	0.116	0.091	-0.053	0.241	0.086	-0.274
Math	-0.033	0.009	0.039	-0.057	0.227	0.151	0.032	0.325	0.240	-0.279
Lang	0.099	0.214	0.020	0.204	0.207	0.119	0.085	0.140	0.049	-0.222
Scien	-0.068	-0.097	-0.068	0.058	0.049	0.014	-0.213	0.163	0.030	-0.304
Soc 0.007	0.000	-0.083	-0.018	0.087	0.117	-0.021	0.200	0.184	-0.276	

Estimation of the measurement model. After the measurement model had been examined using Confirmatory Factor analysis from the LISREL VII program, modification were made to fit the model to the observed data. This modification resulted in the respecified model outlined below. Because there was no discriminant validity between school and classroom climate, these two latent variables were collapsed to form one construct, education climate. This variable had a total of five indicators. The self-concept indicators remained the same, but language was removed as an indicator of achievement. The errors between science and social studies were correlated. The behavior latent variable was very weak because of poor indicators and had to be dropped from the model. The final structural equations model tested for grade three had three latent variables--education climate, self-concept, and achievement. The model stated that education climate had an effect on self-concept and achievement, and that self-concept had an effect on achievement. The χ^2 for this just-identified model was 79.57 with 61 degrees of freedom and a probability level of .055. The Tucker-Lewis goodness-of-fit index was .90 indicating adequate fit.

Results of the Structural Equations Model. The results of the structural equations model, run on LISREL VII, are given below. With the complete model, the paths from education climate to achievement, and from self-concept to achievement, were both statistically significant. Education climate had a direct effect of .329, and an indirect effect of .157 on achievement. The total effect of education climate on achievement as shown by this model was .486. The effect of self-concept on achievement was .692. This model accounted for 5% of the variance in self-concept, and 69% of the variance in achievement. The χ^2 difference test for the path from education climate to self-concept was not significant. The insignificance of this path may be due to the small sample size. A larger sample may yield significance.

The model was respectified with both education climate and self-concept as exogenous or independent variables. These variables were correlated with each other.

They were both said to have a direct effect on academic achievement. Figure 4 has the results of the estimation of this model. The results of this respecified model varied little from the results of the original SEM tested. The strength of the direct effect of education climate and of self-concept on achievement remained the same .329 and .692 respectively. The Tucker-Lewis for this model was the same as for the measurement model, .90.

Analyses for Grade 4

The sample consisted of 71 students from 11 schools, the largest sample of the three grade levels.

Examination of the correlation matrix. As shown in Table 6, the inter-relationships among the climate variables range from a moderate .48 to a weak .068, with the mode being in the .20s. The correlation among the self-concept variables range from a strong .63 to a moderate .39 with the mode in the .60s. The correlations of the self-concept variables with the achievement variables are not as large nor as consistent as for grade 3. Popularity seems to have the strongest relationship with achievement, followed by Intellectual and School Status. The relationship between the climate variables and the achievement variables is weak.

Table 6 continued. Grade 4 Correlation Matrix

Behav	Read	Math	Lang	Scien	Soc	
Behav	1.000					
Read	0.283	1.000				
Math	0.246	0.650	1.000			
Lang	0.248	0.692	0.674	1.000		
Scien	0.072	0.542	0.559	0.554	1.000	
Soc	0.168	0.545	0.548	0.502	0.567	1.000

Estimation of the measurement model. After the confirmatory factor analysis was run, the measurement model was modified to better fit the data in the following manner. The school and classroom climate variables were collapsed to form one latent variable labeled education climate. Task Orientation, and Knowledge and Enforcement of Rules were removed as indicators of school climate. Science was removed as an indicator of achievement, and the errors of Academic Focus and Interpersonal Relationships were correlated. The new structural equations model tested specified that education climate directly affected self-concept, behavior, and achievement; and that self-concept affected achievement directly and through behavior. The χ^2 for this just-identified model was 63.19 with 58 degrees of freedom and a probability level of .298. The Tucker-Lewis index for this model was .98 indicating good fit.

Results of the structural equations model The results of the structural equations model for grade 4 run on LISREL VII, is shown in Figure 5. In the just-identified model, the model with all the paths estimated, the paths from education climate to self-concept, and from self-concept to behavior, were significant. The others were not. However, χ^2 difference tests of individual paths revealed that the path from behavior to achievement was also significant. The result of this test was a χ^2 of 5.98 with one degree of freedom, significant at $\alpha < .05$. This path was therefore added to the trimmed model. The Tucker-Lewis goodness-of-fit index for this trimmed model was .98 indicating good fit.

According to these results, behavior is the only variable with a direct significant effect on achievement. Education climate has an indirect effect of .203 on achievement, through self-concept and behavior. Self-concept has an indirect effect of .266 on achievement through behavior. The model shown in figure 5, the model with the three significant paths, accounts for 58% of the variance in self-concept, 42% of the variance in behavior, and 17% of the variance in achievement. The model with the paths from education climate to achievement and self-concept, and from self-concept to achievement (the just-identified model) included, accounts for 54% of the variance in self-concept, 61% of the variance in behavior, and 50% of the variance in achievement. However, the high level of error in estimating the deleted paths resulted in their being removed from the model. But the potential of education climate and self-concept to directly affect acheivement cannot be ignored.

Analyses for Grade 5

The sample for grade 5 consisted of 35 students.

Examination of the correlation matrix It seems that the relationship and regulation aspects of climate begin to be differentiated at this grade level, as can be seen by the correlations of .43 between Academic Focus and Task Orientation, of .13 between Academic Focus and Knowledge and Enforcement of Rules, contrasting with correlations of .05 between Academic Focus and Interpersonal Relationships, and of -.03 between Academic Focus and Student Relations. Interpersonal Relationships and Student relations are correlated .27, but the correlation of Interpersonal Relationships with Knowledge and Enforcement of Rules is only .005.

At this grade level, there appears to be greater differentiation among the self-concept variables as well. The inter-correlations are much lower (mostly .30s) than for grades 3 and 4. This has implications for the choice, specificity, and measurement of climate and self-concept variables that may be relevant to the achievement of students at various stages of development, an issue that will be discussed later in the paper. Table 7 contains the correlation matrix for grade 5.

Table 7. Grade 5 Correlation Matrix

Focus	Relat	Task	Rules	Frien	Intel	Happy	Popul	Anxie	Ab	
Focus	1.000									
Relat	0.047	1.000								
Task	0.428	0.322	1.000							
Rules	0.125	0.005	0.276	1.000						
Frien	-0.027	0.273	0.322	0.055	1.000					
Intel	0.203	0.260	0.443	0.376	0.239	1.000				
Happy	0.203	0.321	0.095	0.182	0.280	0.326	1.000			
Popul	0.236	0.212	0.463	0.393	0.231	0.694	0.330	1.000		
Anxie	0.110	0.294	0.152	0.051	0.062	0.325	0.385	0.431	1.000	
Ab	-0.468	0.200	-0.063	0.085	0.172	-0.094	-0.105	-0.044	-0.084	1.000
Behav	0.048	0.474	0.119	-0.043	0.373	0.190	0.488	0.138	0.503	-0.176
Read	-0.260	-0.043	-0.037	-0.036	-0.076	0.271	-0.030	0.169	0.116	0.064
Math	0.158	-0.017	-0.038	-0.045	-0.198	0.271	0.085	0.311	0.403	-0.244
Lang	0.063	-0.008	0.014	-0.124	-0.018	0.329	0.252	0.134	0.176	-0.076
Scien	0.137	-0.102	0.004	-0.104	0.013	0.062	0.193	0.202	0.201	-0.027
Soc	0.144	-0.271	0.025	0.059	0.057	0.171	0.427	0.138	0.129	-0.105

Table 7 continued. Grade 5 Correlation Matrix

Behav	Read	Math	Lang	Scien	Soc	
Behav	1.000					
Read	0.131	1.000				
Math	0.155	0.565	1.000			
Lang	0.225	0.686	0.660	1.000		
Scien	-0.031	0.419	0.429	0.457	1.000	
Soc	-0.022	0.364	0.428	0.502	0.688	1.000

Estimation of the Measurement Model. The confirmatory factor analysis resulted in an indequatee Tucker-Lewis index. The structural equations model was therefore not tested.

Discussion

At grade 4 self-concept served as mediating variable between education climate and achievement. Self-concept had a significant direct effect on achievement at grades 3, but a mediated effect at grade 4. This result appears to indicate that self-concept plays a less important role at a higher grade level. However, a deeper look at the issue reveals a more complex situation. There appears to be greater differentiation among the self-concept dimensions with the increase in grade level. Although the general self-concept of younger students may affect their achievement as strongly as any specific self-concept variable, for older students, only self-concepts related specifically to academics may affect their achievement. This may explain why a cursory examination of the literature showed that in most cases, the correlation was significant when academic self-concept or self-concept related to the particular subject area was used (Jordan, 1981; Marsh, 1986; Marsh, Byrne, & Shavelson, 1988; Marsh, Parker, & Barnes, 1985; Mboya, 1986), but not when a general measure of self-concept was used (Jordan, 1981; Mboya, 1986; Williams, 1973). This has implications for the choice and specificity of measures selected for use at the various grade levels. Self-concept may play a strong mediating role between education climate and achievement at all grade levels, but the specificity of the self-concept may increase with grade level.

School and classroom climates were not differentiated in this sample. This may be an artifact of the measures, the nature of the porous relationship between school and classroom climate, or the fact that for these elementary students, the school may be the classroom, the latter being where they spend upwards of some 80% of their school day.

Implications for School Reform

Overall, education environment appears to have a positive effect on, a relationship with, self-concept. Self-concept, in turn, appears to have a significant effect on achievement. School reform programs should therefore actively promote climate changes that contribute to the development of positive self-concept appropriate behavior, and high achievement. This may be particularly important for minority students who have to battle negative images, in the media, and stereotypes of inappropriate behavior and low achievement. It is worth noting, that for increased academic achievement, educators may consider focusing on the development of academic oriented self-concepts for older students through increased skill development in key subject areas. The promoting of a climate in which younger children feel loved and welcomed may be as important as the skills that are taught. School reform programs such as SDP help to bring about such climate changes. The work of the School Planning and Management Team and the Mental Health Team used in SDP are set up to improve climate and self-concept, thus influencing achievement.

Limitations

Because of the small sample sizes, limited grade levels represented and the weakness of behavior measures, the results reported here are tentative and simply indications of what the relationships might be. No strong statements about cause and effect can be made. In addition, school and classroom climate variables need additional dimensions, especially parent involvement, collaborative decision-making, and other factors that the Comer model and current literature stress, to better define the climate variables. Further research is therefore needed to examine the trends reported here.

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Chapter Eight

School Development Effect:
Two Follow-up Studies

By

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Study One

The major purpose of the follow up study was to explore the long term impact of the School Development Program on achievement and mental health adjustment among a group of students who attended the two original SDP schools, and to compare this group with a group of students who attended two non-SDP schools, during the same time period. The study was the first long term follow-up evaluation of the SDP program to be conducted and was, therefore, basically exploratory in nature. No specific hypotheses were tested.

METHODOLOGY

a. Sample

The sample was composed of 62 middle school students. Among them were 20 fifth graders, 21 sixth graders, 20 seventh graders, and 1 eighth grader. Of the 62 students, 44 were students who had attended either of the two SDP elementary schools and 18 were students who had attended either of the two non-SDP elementary schools.

The sample was a non-random sample of students who were accessible, hence the small sample size, as well as the imbalance between the number of SDP and non-SDP students.

The students were drawn from ten schools. These included: Robinson, Sheridan, Troup, Brennan, Hill Central, West Hills, Betsy Ross, Barnard, St. Mary's and Clemente.

b. Design

The study design was a one shot post-test design:

X O (SDP)
O (Non-SDP)

with no pre-test measures. Those students who were exposed to SDP were compared to those students who were not exposed to SDP on a number of outcome measures (See Measures). The sources of error inherent in this design are well known. These include such things as history and maturation, which pose some threat to the internal validity of the study (Campbell and Stanley, 1963). As such, the results obtained in studies utilizing this kind of a design are to be interpreted cautiously.

However, it must be added that very often in field research situations it is difficult to design studies which conform totally to the more rigorous designs such as the pre-test post-test control group design or the Solomon-four design. This was one of those situations where the choice was either to conduct the research using the most convenient design, the one shot, or not conduct the research at all.

c. Measures

Dependent measures included the following: 1) math and reading grades, 2) standardized test scores, 3) a teacher questionnaire, 4) child behavior checklist, 5) social adjustment scale, 6) social control and cooperation grades, 7) Tennessee self-concept scale, and 8) the Woodcock-Johnson Psyco-educational Battery (Brief Scale).

1. Report Card Grades in Reading and Mathematics

Scores were assigned on a five-point scale: A=4; B=3; C=2; D=1 and F=0.

2. Standardized Test Scores in Reading and Mathematics

Scores included those from the Iowa Test of Basic Skills, given to children in the first through eighth grade, and the statewide Base 3 and Base 6 Tests given to children in the third and sixth grades.

3. Teacher Questionnaire (Connors, 1969)

This questionnaire was completed by each child's math teacher. The Teacher Questionnaire (TQ) contains items grouped in the following categories: Items 1-21 refer to classroom behavior; items 22-29 refer to group participation; and items 30-39 refer to attitude toward authority. The age assessed by the scale ranges from six to fifteen years. Test-retest reliability scores ranged from .71 to .91 (Orvaschel, et al., 1980). The form is precoded and can be fully computerized. Ratings are made on a 4-point scale from 0 (not at all) to 3 (very much) depending upon how much the teacher feels the item is descriptive of the child.

The scoring procedure requires that the items be summed according to the factor structure with unit weighing of each item. The TQ contains six factors (i.e., hyperactivity, conduct disorder, emotional indulgent, anxious/passive, social, and daydreaming). The composite factor score is then divided by the number of items in the factor to obtain a mean factor score which is standardized against the age norm to produce a T-score. The T-scores have been used as a cut-off criterion for identifying children with behavior problems. A T-score which is beyond two standard deviations from the mean was used rather than the arbitrary 1.5 criterion points often used with this instrument (cf. Trites, et al., 1981).

4. The Child Behavior Checklist: (Achenbach & Edelbrock, 1981)

The CBCL was originally developed as a behavior problem checklist and is completed by the child's parent(s). The scale was designed primarily as a screening instrument to detect behavior deviation in children between the ages of four and sixteen years. The CBCL is composed of two parts. Part I includes three social competence subscales: (1) the activities scale, which rates the amount and quality of the child's participation in sports, hobbies, clubs, and chores; (2) the social scale which rates the child's interpersonal behavior with others (siblings, parents, peers) and his/her behavior alone; and (3) the school scale, which rates the child's academic performance and attempts to determine the presence of school problems. Part II includes 130 statements which describe childhood behaviors. Parents respond by indicating if each statement is "not true," "true" or "really true" about their child. This part is scored on the three-point system (not true = 0, true = 1, really true = 2). The time period assessed is the past 12 months. The CBCL is a precoded form. The scale enables children to be compared with appropriate age and sex group norms. The checklist's re-test reliabilities across three interviewers are .95 for behavior problems and .92 for social competence items. The checklist is self-administered by one of the child's parents. Inter-parent reliability of the measure is .98 for behavior problems and .97 for social competence (Achenbach & Edelbrock, 1981).

5. The Social Adjustment Scale

A subscale of the Child Study Center's Children Interview Package was used to assess children's current social-emotional functioning in terms of their relationship with their peers. The Child Interview Package is a structured interview package containing several subscales such as the K-SADS-E, the Social Adjustment Scale and scales concerning General Medical History, Neuropsychiatric History and Treatment History. The scoring procedure for the scale is quite similar to that of the Teacher Questionnaire. Items are scored on a four-point scale according to the degree of difficulty experienced by the child. The scale was completed by an interviewer for each child.

6. Social Control and Cooperation

At the end of each year, teachers assign an evaluative grade to each child's social-emotional adjustment by grading his/her social control and cooperation in the classroom. The scoring system varies among teachers and schools. The most common scoring procedure is that of letter grades (i.e., A, B, C, etc.); however, the use of the grade "S" (i.e., Satisfactory) is not uncommon. We have devised a 5-point scale for coding and analyzing the social control and cooperation data. The scale is based upon a grading system which incorporates degree of social control or cooperation with a letter category (i.e., A=4, B=3, C=2, D=1, F=0). Grades of "S" were coded as "C" and grades of "U" (Unsatisfactory) were coded at "F" (Failure).

7. Tennessee Self-Concept Scale (Fitts, 1964)

This form was self-administered by each student and required about 20 minutes. It contains items relating to five general areas: Physical self, Moral-ethical self, Personal self, Family self, and Social self. We used the Clinical and Research form of the scale, which measures response bias, as well as defensiveness, general maladjustment, psychosis, personality disorder, neurosis and personality integration. The test-retest reliability is high over two weeks, ranging from .70 to .92 (Robinson & Shaver, 1973).

8. Woodcock-Johnson Psychoeducational Battery (Woodcock & Johnson, 1977)

The Cognitive Ability--Brief Scale of this well-known battery of tests was used to measure the general cognitive functioning of each student. This particular instrument was selected because it contains the Brief Scale, a measure of broad cognitive abilities consisting of the "Antonym-Synonyms" and the "Quantitative Concepts' clusters.

The scores on this test were interpreted two ways: a) using grade equivalent scores and b) using the Relative Performance Index. Both interpretations compare the children to the normed group on the basis of grade level and mastery of concepts.

Children's scores were analyzed to determine if they are below, on, or above grade and mastery levels. A chi-square analysis was used to determine if a greater number of experimental children are on and above grade level than our control children.

d. Procedures

The name of students who entered kindergarten at the two SDP and the two non-SDP schools were obtained from the central research office of the New Haven Public Schools. A determination was then made as to the likely grade placement of these students at the time of the research. It was determined that the majority of these students should be in the fifth through eighth grades. An attempt was then made to track down as many of these students as possible.

The list obtained from the research office contained the names of 190 students. Of this number the researchers were able to track down 133. The tracking process began in the student's original school and eventually led to the school where students were currently enrolled.

After the tracking process was over, 85 experimental students (i.e., students who attended either of the two SDP schools were identified and 48 control students were identified).

Each student was given a letter explaining the nature and purpose of the research to take his/her parents along with a consent form which parents were requested to sign indicating their willingness for their child to participate in the study.

Sixty-two consent forms were returned. Of these, 44 (52%) were from parents of experimental students and 18 (38%) from parents of non-experimental students. The result was that the sample size for the study was very small and this we believe affected the results obtained.

After receiving parental consent, the research staff arranged with the principal and homeroom teacher of each child for a two-session interview at the child's school. During the first session, the child completed the Tennessee Self Concept Scale and was given the Social Adjustment Scale interview by an interviewer trained at the Child Study Center. During the second session (on the following day), the child was administered the Woodcock-Johnson Battery (Brief Scale). Each session took approximately 45 minutes.

The Child Behavior Checklist was sent home to each child's parents and the completed forms were mailed directly back to the Child Study Center. Teacher Questionnaires were distributed to the appropriate teachers and returned to the Child Study Center. Data from the children's school records (report card grades, test scores and attendance) were collected at the school by research staff persons. The total time necessary for data collection was approximately six weeks.

1.2 ANALYSES

Analysis of variance and correlational analysis procedures were utilized to analyze the data.

In the analysis of variance procedures, program status, that is, whether or not a student attended program school, comprised the independent variable. All of the measures discussed above constituted the dependent variables.

Only significant results are reported below.

1.3 SIGNIFICANT FINDINGS

a. Significant Differences

Mean differences significant at alpha .03 level were found between program and non-program students on seventh grade reading and math tests. Program students (n=9) had mean scores of 83 and 82.6 respectively on reading and math while non-program students (n=9) had mean scores of 69.3 and 77.4. Summaries of the analysis of variance are presented in Tables 1A and 1B.

TABLE 1A

Analysis of Variances on Seventh Grade Reading Test

Source	Sum of Squares	Df	Mean Square	F	Significance
Between Groups	840.500	1	840.500	5.489	.0324
Within Groups	2450.00	16	153.125		

TABLE 1B

Analysis of Variance on Seventh Grade Math Test

Source	Sum of Squares	Df	Mean Square	F	Significance
Between Groups	480.500	1	480.500	5.834	.028
Within Groups	1317.778	16	82.361	5.834	

b. Significant Correlations

Significant Pearson moment correlation coefficients were observed between a number of subscales on the Tennessee Self-Concept Scale and some subscales on the Teacher Questionnaire among program students. No significant correlations were observed for non-program students.

For program subjects, a modest but significant correlation ($r=.25$, $p<.05$) was noted between the students' classroom behavior and their concept of their physical selves. That is to say, the more positively the student viewed himself/herself, the better his/her classroom behavior was inclined to be. A modest but significant correlation ($r=.33$, $p<.01$) was also noted between students' attitudes toward authority and their concept of their physical selves. The more positively program students viewed themselves physically, the better their attitudes toward authority tended to be. Another modest but significant correlation ($r=.27$, $p<.04$) was observed between students' concept of their status within their families and their overall behavior. Children's total self-concept was found to be modestly, but significantly correlated with their attitude toward authority ($r=.26$, $P<.05$). These significant correlations are summarized in Table 2.

TABLE 2

Summary of Significant Correlations for Program Student Self Concept Teacher Questionnaire Self Concept Sub Scales

Sub Scales	Physical	Family	Total
Classroom Behavior	.25*		
Attitude Toward Authority	.33***		.26*
General Behavior		.27**	

Note: Significance Level

*.05
**.04
***.01

1.4 DISCUSSION

In interpreting the findings presented, one has to do so with caution. The sample consisted of sixty-two students who were enrolled in program and non-program schools in 1977. No systematic follow-up or longitudinal studies involving these students were undertaken until the

Spring of 1984, when an attempt was made to locate and study as many of the original students as possible. The attempt to identify original students from program and non-program schools yielded a sample of 62 (44 program, 18 non-program). Some measures such as seventh grade test scores were not available for all 62 students. In fact, seventh grade test scores on which significant differences were noted were obtained for only 18 students (9 program and 9 non-program).

Thus, important weaknesses of the study design exist: 1) a lack of systematic longitudinal followup and 2) the small number of students for whom data on some measures were obtained.

a. Significant Differences

As indicated in the preamble to this discussion, the significant differences in seventh grade reading and math scores were based on a sample size of 18 students, 9 program and 9 non-program. Despite the smallness of the sample size, the significance of the differences on reading and math cannot be ignored. These significant differences suggest the existence of some sustained positive program effect on student achievement.

Furthermore, the fact that these differences were observed to occur at the seventh grade level is of some importance. The seventh grade marks the beginning of the second half of the middle school experience. It is the grade at which the student in transition from elementary to high school is generally required to show great adjustment and readiness for more advanced work beyond elementary and middle school. The seventh grade is, as it were, the halfway point in a marathon when stamina, endurance and a will to succeed are called upon to push the athlete toward the finish line.

The SDP program purports to give students the basic foundation in terms of academic and social skills, through special curricular activities and a supportive school environment which would carry them from elementary through to high school and then on to college. These preliminary data, though based on a small sample, would seem to indicate a measure of success for the SDP in attaining its objective.

b. Significant Correlations

The interpretation of significant correlations is always less robust and clear-cut than the interpretation of significant mean differences. However, the findings of significant correlations does provide important information. The existence of significant correlations among variable for program students but not for non-program students suggests that some other factor or factors were operating among program students that were not operating among non-program students. The finding that physical self-concept was significantly related to classroom behavior and attitude toward authority for program students but not for non-program students would seem to suggest that the positive impact of SDP on students' self-acceptance and self-esteem tended to be reflected in their behavior and their attitudes. This point is further supported by the observed significant relationship between total self-concept and program students' attitudes.

One of the strengths of the SDP model is its emphasis on the involvement of the family, parents and children, in the planning of school activities; the development of a sense of "our school" rather than "the school" on the part of children and parents. The significant relationship between program students' family self-concept and their overall behavior in and out of school offers some evidence that this particular aspect of the SDP is having positive results. It is certainly more than coincidence that this significant relationship was not found to exist among non-program students.

Study Two

METHODOLOGY

a. Sample

A total of 253, predominantly black children in grades K-6, their parents and teachers constituted the study sample. Among the 253 children, 123 were males and 130 females; 153 (60%) attended SDP schools and 100 (40%) attended non-SDP schools. A breakdown of the sample by grade is as follows: Kindergarten=50, First Grade=27, Second=27, Second Grade=33, Third Grade=63, Fourth Grade=48, Fifth Grade=17, Sixth Grade=15.

b. Design

The design was a quasi-experimental, one shot control group design which may be depicted as follows:

R X O (SDP Group)

R X O (Non SDP Group)

The responses of a randomly selected group of children, parents and teachers in schools having the SDP program were compared with the responses of a randomly selected group of their counterparts in schools not having the SDP program.

c. Measures

The dependent measures were divided into three categories as follows: 1) Student Measures, 2) Parent Measures, and 3) Teacher Measures. The specific measures are listed under their respective categories below:

Student Measures

--Self Concept: Tennessee Self-Concept Scale

--Child Behavior: Behavior Description Questionnaire

--Assessment of Classroom Environment: Classroom Environment Scale

--Achievement: California Achievement Test and report card (classroom) grades for reading and math

Parent Measures

--Parents' Assessments of their child's School Climate: Parent Survey

--Child Behavior: Behavior Description Questionnaire

Teacher Measures

--Child's Attitudes: Teacher Questionnaire

--Child's Behavior: Behavior Description Questionnaire

--Teacher Assessment of School Climate: School Survey

d. Procedures

A random sample of students (controlled for gender) was selected by using elementary school rosters for the 1983-84 school year. An equal number of boys and girls were identified in each classroom of the four SDP schools and four non-SDP schools in the district. Parents of 1,142 potential subjects (approximately 10% of the total population of the eight schools) were contacted; parental consents were received for 337; complete data sets were obtained on 253 children.

The procedures used for data collection were similar to those used in the New Haven Study (see Section 1.1(d) above). However, rather than two sessions with each student, only one was necessary because of fewer student measures used. Like in New Haven, student sessions were held at the school, with individuals or small groups of students completing the forms with the assistance of a member of the research team. Parent and teacher forms were delivered to the individual parent or teacher, then mailed back to the research office upon completion.

2.2 ANALYSES

The following analyses were performed on the data:

a. Descriptive Data Analysis: presented means for SDP and non-SDP groups on the dependent measures.

b. Analysis of Variance: examined whether the mean differences between SDP and non-SDP groups on dependent measures are significant.

c. Chi Square Analyses: examined the relationship between SDP involvement and performance on dependent measures.

d. Correlational Analyses: examined the extent to which children's parents' and teachers' assessment of children's overall behavior correlated with one another.

e. Stepwise Discriminant Analyses: determined which among the dependent measures best discriminated between (or separated) students involved in SDP from those not involved.

2.3 RESULTS

a. Descriptive Data: The descriptive data analysis addressed the following question: What are the mean scores for SDP and non-SDP groups on the dependent measures? Presented in table 3 are the mean scores for the SDP and non-SDP groups on the dependent measures.

b. Significant Differences (Analysis of Variance): Significant differences were examined through the Analysis of Variance procedure. The following question was addressed: Were the mean differences between the SDP and non-SDP groups on the dependent measures significant at .05 or better? The results of the ANOVA procedure are presented in Table 4.

TABLE 3

Mean for SDP and Non-SDP Groups on Dependent Measures

Measures	SDP	NonSDP	Desired
Student Measures	x	x	x
Self-Concept	2.3	1.4	4.0
Child Behavior (Child's Evaluation)	1.7	1.3	2.0
Assessment of Classroom Environment	.60	.40	2.0
California Achievement Test*			
Classroom Reading Grade	2.08	1.90	4.0
Classroom Math Grade	2.00	2.00	4.0
Parent Measures			
Child Behavior (Parents' evaluation)	.46	.40	2.0
Teacher Measures			
**Children's Attitude Toward Authority	.25	.53	0
**Children's Classroom Behavior	.14	.21	0
**Children's Group Participation	.18	.60	0
Children's Overall Behavior	2.90	2.20	4.0
Teachers' Assessment of their School Climate	1.54	1.01	4.0

*Means were not calculated because of the differences represented by each grade's desired grade equivalent score.

**On these measures, where the indicated desired x=0, the items were negatively worded. SDP groups tended to have lower mean scores on these measures, thus did "better" than non-SDP groups.

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TABLE 4

Summary of Significant Results from the Analysis of Variance

Dependent Measure	SDP x	NonSDP x	Df	Mean Square	F	Significance
Classroom Behavior	.14	.21	1,251	1.557	4.814	.029
Group Participation	.18	.60	1,251	1.046	4.617	.033
Attitude	.25	.53	1,251	.895	4.496	.035
Teachers Assessment of their School Climate	1.54	1.01	1,251	17.304	9.542	.002

Table 4 indicates that significant mean differences were found between SDP and non-SDP groups on classroom behavior, group participation and attitudes in favor of the SDP group. Teachers who were asked to evaluate students on these measures tended to evaluate SDP students more positively than they tended to evaluate non-SDP students. The table also reveals that teachers in schools where the SDP program was in effect gave the climate of their school significantly higher ratings than did their counterparts in non-SDP schools.

When the Analysis of Variance procedures were repeated with grade level as a controlling variable, other significant differences were observed.

These are summarized in Table 5:

TABLE 5

Summary of Significant Findings Controlling for Grade

Grade Level	n	Dependent Measure	SDP x	NonSDP x	Df	Mean	F Square	Significance
4	50	Classroom Reading	2.36	1.50	1	9.189	5.797	.02
4	50	Classroom Math	2.36	1.64	1	6.401	3.864	.05
5	17	Classroom Reading	2.60	.43	1	19.415	18.073	.001
5	17	Classroom Math	2.50	.14	1	22.878	36.675	.0001

The data presented in Table 5 indicates that at grades 4 and 5 significant mean differences occurred on classroom reading and math grades in favor of the SDP groups. No such significant differences were found to exist at grade levels 1-3 or at grade 6.

c. Significant Relationships (Chi Square Analysis)

The question addressed was: Is there a significant relationship between a student's involvement in SDP and his/her performance on the CAT? In other words, is whether or not a student at/above or below grade level on CAT Math and Reading dependent on his/her involvement in the SDP. Chi square analysis was used.

The results indicate that a significant relationship existed between a student's involvement in the SDP program and his/her performance on the CAT reading component. These results are summarized in Table 6.

TABLE 6

Summary of Significant Chi Squares for CAT Reading

	n	# and % at or Above Grade Level	# and % Below Grade Level	x^2	df	Significance
Grade 3						
SDP	39	31 (80)	8 (20)	3.95	1	.05
NonSDP	28	15 (54)	13 (46)			
Grade 4						
SDP	28	24 (86)	4 (14)	9.12	1	.0025
NonSDP	22	9 (41)	13 (59)			

Note: ( ) = percent

d. Correlations (Pearson Moment Correlation Coefficients)

Children, parents and teachers were asked to evaluate children's overall behavior on a questionnaire called the Behavior Description Questionnaire (BDQ). A major purpose for asking children to evaluate themselves, then asking parents and teachers to evaluate these same children on the same questionnaire was to determine the extent to which the three evaluations would agree or correlate. The question addressed was: To what degree do children's, parents' and teachers' evaluation of children's overall behavior agree or correlate?

The results indicate that children's evaluation of their own behavior did not agree with the evaluation of parents and teachers. However, the evaluation of parents and teachers correlated modestly but significantly. These results were obtained for the total sample as well as for SDP and non-SDP groups separately.

These results are summarized in Table 7.

TABLE 7

Correlations for Children, Parents and Teacher Evaluations on Children's Behavior

	Child & Parent (N)	Child & Teacher (N)	Parent & Teacher (N)
SDP	-.03	-.09	.15
	p=.49	p=.19	p=.03*
NonSDP	-.08	-.13	.30
	p=.21	p=.10	p=.001*
Total	-.03	-.03	.91
	p=.32	p=.09	p=.001*

Note: p=significance level
*=p<.05

It is evident from the negative correlations that children assessment of their own behavior differed from that of their parents and teachers, although the differences did not appear to be significant. Teachers and parents, however, showed significant though moderate agreement on the assessments of children's behavior.

e. Discriminating Between SDP and Non-SDP Groups (Stepwise Discriminant Analysis)

To investigate possible correlations between SDP and non-SDP groups, the question addressed was: Which variable or combination of variables best discriminated between or separated SDP and non-SDP groups?

A stepwise discriminant analysis procedure using Wilks Lambda was selected to address this question. The benefit of the stepwise procedure was that it entered variables into the discriminant function, in order, on the basis of their strength of discrimination and it also gave the best combination of variables into the equation. The object of the discriminant function was to minimize Wilks Lambda.

The discriminant procedure was performed for each grade level for grades 1 through 6 and then for the total sample.

1) First Grade

No variables qualified for the analysis because of an insufficient F level for each variable. This suggests that for first graders none of the dependent variables significantly discriminated between SDP and non-SDP groups.

2) Second Grade

TABLE 8

Stepwise Discriminant Analysis - Grade 2

Steps	Variables	Wilks Lambda	F	Significance
1	Classroom Reading	.89	3.99	.05
2	Classroom Math	.78	4.33	.02
3	Child's Assessment of his/ her own behavior	.73	3.50	.03

Three variables contributed significantly to the discrimination function. The order of importance of each variable is indicated by the step at which the variable was entered. Thus, for second graders, a combination of classroom reading, classroom math and a child's assessment of his/her overall behavior best discriminated between SDP and non-SDP groups. This function was found to be significant at .03.

3) Third Grade

TABLE 9

Stepwise Discriminant Analysis - Grade 3

Steps	Variables	Wilks Lambda	F	Significance
1	CAT Reading	.87	8.90	.004
2	Child's Assessment of his/			

	her Classroom Environment	.83	5.92	.005
3	CAT Math	.81	4.51	.007

Three variables contributed significantly to the discrimination function. The order of importance of each variable is indicated by the step at which the variable was entered into the equation. Thus, for third graders, a combination of CAT Reading, the child's assessment of his/her classroom environment and CAT Math best discriminated between SDP and non-SDP groups. This function was significant at .007.

4) Fourth Grade

TABLE 10

Stepwise Discriminant Analysis - Grade 4

Steps	Variables	Wilks Lambda	F	Significance
1	Classroom Reading	.85	8.17	.006
2	Group Participation	.80	5.72	.006
3	CAT Reading	.77	4.33	.009

Three variables contributed significantly to the discrimination function. The order of importance of each variable is indicated by the step at which the variable was entered. Thus, for fourth graders, a combination of classroom reading, group participation and CAT Reading best discriminated between SDP and non-SDP groups. This function was found to be significant at .009.

5) Fifth Grade

TABLE 11

Stepwise Discriminant Analysis - Grade 5

Steps	Variables	Wilks Lambda	F	Significance
1	Self-Concept	.11	34.63	.000
2	Teacher's Assessment of Child's Overall Behavior	.08	30.93	.000

3	Child's Assessment of his/ her Classroom Environment	.04	32.83	.000
4	Child's Attitude	.04	31.34	.000
5	Classroom Math	.02	53.40	.000
6	Group Participation	.01	133.50	.000

Six variables contributed significantly to the discrimination function. The order of importance of each variable is indicated by the step at which the variable was entered. Thus, for fifth graders, a combination of child's self-concept, teacher's assessment of child's overall behavior, child's assessment of his/her classroom environment, child's attitude, classroom math grades and group participation best discriminated between SDP and non-SDP groups. This function was significant at .000.

6) Sixth Grade

TABLE 12

Stepwise Discriminant Analysis - Grade 6

Step	Variable	Wilks Lambda	F	Significance
1	CAT Math	.67	6.40	.03

Only one variable contributed significantly to the discrimination function. The variable was significant at .03.

7) Total Sample Combined

TABLE 13

Stepwise Discriminant Analysis Total Sample

Steps	Variables	Wilks Lambda	F	Significance
1	CAT Reading	.97	6.41	.01
2	Attitude	.95	6.50	.001
3	Classroom Reading	.94	4.80	.003
4	Classroom Math	.91	5.93	.001

Four variables contributed significantly to the discrimination function when the total sample was considered. The order of importance of each variable is indicated by the step at which the variable was entered. Thus, for the total group, a combination of CAT Reading, Child's Attitude, Classroom Reading and Classroom Math best discriminated between SDP and non-SDP groups.

DISCUSSION

The basic proposition or thesis of the School Development Model (SDP) is that the application of social and behavioral science principles to every aspect of a school program will improve the climate of relationships among all involved and will facilitate significant academic and social growth of students (James P. Comer, 1980). While the results reported and discussed here provide a measure of support for this thesis, much more work and study need to be done to provide long term evidence of the value of SDP in enhancing school climate, improving student behavior and increasing student achievement.

The examination of differences between SDP and non-SDP groups indicated that in several areas the existence of the SDP program made a significant difference. SDP teachers tended to evaluate their school's climate significantly more positively than teachers in non-SDP schools (Table 4). This finding is especially important because it is the basic philosophy of the SDP approach that a positive change in school climate undergirds all other improvements such as student behavior and academic achievement. In fact, it is expected that other improvements may lag behind improvements in school climate until the climate becomes strong and stable enough to generate, encourage and support other improvements. Thus, the observation of significant differences also between SDP and non-SDP students on measures of classroom behavior, group participation and attitude in favor of SDP students (Table 4), though not totally unexpected, was a very much welcome surprise. The concurrent occurrence of very strong positive climatic changes and strong behavioral and attitudinal differences offer almost irrefutable evidence that SDP is doing what it purports to do.

A further examination of group differences by grade level provided even more gratifying results. It was noted that at grade 4 and 5 SDP students performed significantly better than non-

SDP students in reading and math (Table 5). In fact, the mean differences in favor of SDP students were very large, especially at grade 5. It is clear that even at this early stage of its implementation in the Benton Harbor Area Schools, the SDP is already beginning to impact achievement, in addition to climate and behavior. It is indeed noteworthy that the positive impact on academics is occurring at grade 4 and 5 before it is evident at other grade levels. This is a phenomenon that is worthy of further study. Why is the SDP having its early impact on achievement at grades 4 and 5 and not at grades 1-3 or grade 6? This question will be explored in future research.

Another measure of achievement considered in the study was the California Achievement Test (CAT). Because of the nature of this test and the way it is interpreted, it was not used in the analysis of variance procedures which examined significant differences. Students were classified as being at/above grade level or below grade level on the reading and math components of this test. A 2x2 chi square analysis was then performed using SDP, non-SDP as two levels of one dimension and at/above, below grade level as two levels of the other dimension. The purpose of this analysis was to see whether a student's standing on the CAT depended to a significant degree on his/her SDP status. At grades 3 and 4 this was found to be the case (Table 6). Thus, again, it was found that having been involved in the SDP program had positive impact on achievement, in this case in grades 3 and 4. The results at grade 4 were especially significant. Since a significant difference in classroom reading and math was also noted at grade 4, it would appear that the SDP may be having its greatest early impact on achievement at this level.

In combining the results of the analysis of variance and the chi square analysis, one may conclude, albeit tentatively, that the SDP is already impacting school climate, student behavior and attitudes and student achievement at grades 3, 4 and 5, but particularly at grade 4.

A review of the correlational data (Table 7) offers interesting information. While teacher and parent ratings of children's behavior correlate significantly and positively, though modestly, children's ratings of their own behaviors correlate negatively with both their teachers and their parents. This has been found to be true for both the SDP and non-SDP groups. It is evident that students have a different perspective or set of values and standard for assessing their behaviors from those of their parents and teachers, who tend to agree more. Yet one notes that the correlations between parent and teacher ratings, though positive and significant, are very modest. These findings, when considered in total, suggest that students, parents and teachers are not as together or in harmony as they could be in their standards of what is appropriate behavior and what is not or in terms of their interpretation of a child's behavior relative to the standards of appropriate behavior.

The stepwise discrimination analysis procedures (Tables 8-13) indicate that in distinguishing SDP from non-SDP students a combination of achievement, behavioral and attitudinal characteristics are important at each grade level and for the total sample combined. The discrimination function allows a person to predict or assign a student to either the SDP or non-SDP category simply on the basis of knowing that student's performance on the measures entered in the function, but without having prior knowledge of that student's SDP status.

For example, if someone at the Grant Foundation were given the scores of two fourth grade students on classroom reading, group participation and CAT reading, without knowing anything else about these students, the chances are that the person at Grant would be able to tell which student was an SDP student and which student was not, based on the discrimination function once the parameters of the function were known.

The discrimination analyses clearly indicate that at different grade levels, different combinations of variables are useful in separating SDP from non-SDP students, except at grade 1 where no one variable or combination of variables is useful. At grade 1 SDP and non-SDP students tend to be more alike than different on the behavioral, attitudinal and achievement measures used.

The fact that behavioral, attitudinal and achievement measures combine at each grade level to significantly differentiate SDP from non-SDP students suggests that all of these areas are beginning to be impacted by the SDP. However, the results of the discriminant analyses emphasize the need to look at the impact of SDP at respective grade levels since it appears that the impact at grade 2 may be different from the impact at grade 3 and so on.

As a final conclusion to this discussion, it is safe to summarize the findings as follows:

1. The SDP is having a positive impact on school climate, student behavior, student attitudes and student achievement.
2. The impact on student achievement seems to be greatest at grades 3, 4 and 5, especially at grade 4.
3. Parents' and teachers' assessments of children's behavior correlate more highly and significantly than do the correlations between children's assessments of their own behavior and their teachers' or parents' assessments.
4. Different combinations of behavioral, attitudinal and achievement data are useful in predicting a student's SDP status depending on the student's grade level.

Chapter Nine

An Examination of the Psychosocial and School Achievement Characteristics Among SDP and Non-SDP Middle School Students

By

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Introduction

The renewed interest of national education officials and policy-makers in reforming American schools brings increasing challenges for school practitioners. Two such challenges for middle school educators are to render both academically, and developmentally appropriate practice to children who are at turbulent stages in the cycle of development. The stages of development for these children range from the slow but steady intellectual development and physical growth associated with middle childhood to the physical growth spurts and the emerging levels of cognitive maturity associated with early adolescence.

Cognitive development for middle school children proceeds largely within the framework of schooling (Papalia & Wendkos-Olds, 1989). As children enter the stage of concrete operations, according to Piagetian theory, their thinking becomes logical. Children at this stage now have the ability to understand complex concepts and to solve more sophisticated problems. They also make more mature moral judgments as they grasp concepts of right and wrong and become less egocentric. These changes aid their social development as (Papalia & Wendkos-Olds, 1989). According to social development theorists, middle school age children's keen self-awareness, and observation make them more receptive to the influence of people they admire or to those who are perceived as powerful and rewarding. In middle-childhood the approval or disapproval of parents, teachers, and peers becomes a powerful shaper of self-concept and behavior (Papalia & Wendkos-Olds, 1989).

At early adolescence, development psychologists suggest that the crisis of identity versus confusion occurs. Establishing sense of identity for adolescence means that a series of questions are asked to clarify who they are and what their role in society should be:

> Am I a child or an adult? Do I have what it takes to someday be a husband and a father? A wife and a mother? What work will I do? How am I going to earn a living? Do I matter, even though some people look down on me because of my race or religion or national background? Will I be a success or failure? Adolescents are sometimes morbidly preoccupied with how they appear in the eyes of others are compared with their own conceptions of themselves, and with how they can make the roles and skills have learned earlier match those that are currently in style (Office of the President, 1941 cited in Gage & Berliner, 1988).

The inability to come to an understanding of self --a lack of identity -- leads to confusion. Failure to resolve this crisis prolongs adolescence and limits the ways in which people function in adult roles. These individuals do not cope effectively with later crises in the life cycle. On the other hand, a healthy resolution of this crisis leads to confidence in oneself and a sense of security that the future is going to be good (Gage & Berliner, 1988).

The purpose of this paper is to characterize the psychosocial adjustment and achievement status of students attending schools in which the Comer School Development Program has been implemented. Provided in this paper will be a description of the School Development Program's involvement with middle schools, and an analysis of relevant data.

Literature Review

For many minority students the development crises normally encountered during these stages are further exacerbated by difficulties associated with the urban environment. Urban blight, substandard housing, crime, an underground economy of drugs, sex, violence, lack of meaningful activities outside of the school place additional burdens on young city dwellers. Youngsters whose families are faced with severe social and economic problems are more likely to succumb to temptations of the underground economy which would place at risk their opportunity escape the cycle of poverty.

Developmental research has established that the role of the adult at this stage of development is critical to the young adolescent's healthy transition into adulthood. Parenting styles influence children's personality development. Children whose parents balance firmness with love and respect are most often self-reliant, self-controlled, and content (Hetherington & Parke, 1986). In addition, researchers have documented the effects of teaching styles and behaviors on student behavior and achievement (Kagan, 1988; Dillon, 1989; Mosston & Ashworth, 1990). Providing constructive and consistent feedback, setting high expectations, and engaging quality interaction with students are among the strategies cited as most effective in encouraging positive school experiences for children. However, educational researchers and reformers warn that "unless schools, health providers, parents and policy-makers join together to help young adolescents, a large portion of today's teenagers will face troubled and unhealthy lives as adults" (Education Week, 1992).

At a recent middle school symposium (1992), a group of students from New Haven were asked to share with the adults their feelings about being in middle school. They talked about their relationships with the significant adults in their lives, as well as their peer relationships. The following is a vignette from the symposium which summarizes students questions, concerns, and insights.

Question: What do you think about school?
Responses: You get to learn subjects; It's fun-you get to go outside and play ball; you can meet friends; there are a lot of activities; teachers are nice; it's bad at times-you have fights with friends; you do bad on tests; it keeps you off the streets -you learn more in school-there is more knowledge in school than in the streets.

Question: Do all of your friends feel the same about school?
Responses: *No, they come because they have to; they have other influences like selling drugs;*

they are not programmed to learn; kids are under pressure-they have unnecessary suspensions and referrals; some friends don't try--they are concerned with popularity and with being the school bully; some kids are really smart but feel they don't have to show up for school--they want to be with the popular people; school is a meeting place for starting trouble--hanging out and selling drugs; some teachers try very hard but give up; they don't care.

Question: Why don't your friends like school?
Responses: *They didn't get praise in the past, so they don't try in the present; teachers don't help kids try to learn-so kids don't try anymore; kids don't want to be nerds-you're a nerd if you do well; kids think what they're learning is not important; you don't know when you're going to use what you learn; kids hear about people going to college and making minimum wage--you can make more money on the street; you need a degree to fry a hamburger; education starts at home.*

Question: Why aren't your friends doing what you do?
Responses: *They don't want to work hard--kids want to grow up and get famous and have money; they don't receive enough attention from teachers; teachers always say students don't have the ability to learn; teachers put students down; teachers call me dumb--I know I'm not dumb--I'm smart enough to come to school; teachers get frustrated when students act up; kids don't care; kids think education is not for them; kids are concerned about the economy; kids think the streets will take them somewhere.*

Question: Do you get pressure to use drugs; have sex?
Responses: *Yes, there's just as much to sell drugs are to use; I stay away from stuff like that because I know what I want to be; yes, because of curiosity/temptation-how does it feel?-but when you do find out, it becomes a problem you can't solve; the more they (school) teach us the more curious we get; it makes you look cool; people pressure you to have sex; it's dangerous out there--I'm really scared; sex education is just as important as mathematics education; they teach us to say no; they don't teach us how to say no.*

Question: What can schools do differently?
Responses: *You should only get a certain amount of suspensions and then you're out; make rules stricter; lock doors--I don't feel safe--security guards don't do their jobs; we need metal detectors--it's easy to bring weapons --we can't do things after school, there's no money for guards; kids are vicious--there are 3-4 fights a week--girls carry knives; teachers should have more contact with students and parents; school day should be longer; there should be less kids in class, everybody wants the teachers attention; I would like to spend more time with the same teacher; detention should be more constructive--kids should clean up the school or have more instruction;l schools should help get kids off streets and back in the classroom; we need more nurses-more health care; teachers should try to be more of a parent to kids; better teaching; kids are not born fighting--they get it from the streets--teachers and parents have to work together.*

Question: What is the one most important thing schools could change?
Responses: *Keep schools clean, keep weapons out; keep drugs out; teachers should teach during detention; social development for everyone--kids who do well in school have problems too; teachers should sit down and teach you; not put you down and tell you you're dumb.*

The articulate description of the middle school experience presented by these students drives home a piercing point for educators that all of our social institutions must begin to act more effectively in an effort to address the problems with which we are faced. Innovations in educational practice have attempted in many ways to address these challenges and, to a large extent, have fallen short of the mark. Many fail to recognize the fact that the school working in concert with the family and the community has the greatest potential and resources for developing programs and strategies that will have a positive impact on the lives of these children. This notion has guided the work of the School Development Program in creating an intervention process to aid middle schools as they engage in the difficult task of educating students.

The School Development Program (SDP) employs a holistic approach to addressing school reform issues and has as its unifying concept, the development of social relationships. The SDP model culminates the efforts of school staff, parents, students, and members of the community to build the social relationships and understandings which have an impact of these efforts at the middle school level will have long term effects for students, and will carryover to later school experiences.

Description of the School Development Program

The School Development Program (SDP) is a system level primary prevention approach that addresses all aspects of a school's operation, not a particular group of individuals, or any particular pre-targeted specific aspect of a school. It entails processes which allow the school to review its aims and methods and to identify problems in a "no-fault" atmosphere. It seeks to develop creative ways of dealing with problems, and to implement these ways using the collective good judgment (based on social and behavioral science knowledge) of school officials and parents (Joyner, 1991). Finally, the program monitors initiatives through regularly scheduled meetings of two of its key components, the School Planning and Management Team (SPMT) and the Mental Health Team (MHT). The organization and function of this SDP process is presented in figure 1.

There are three program components or mechanisms and three major program operations. The key program component is the building level representative governance and management body commonly referred to as the School Planning and Management Team (SPMT). The Mental Health Team (MHT) provides child development and relationship knowledge and skill to the governance and management body and its own prescriptive activities. Parents support the program through participation on the governance and management body, and through the support of academic and social activities that are developed through and with the management body.

A comprehensive school plan which outlines goals, objectives and strategies is developed by each SPMT. The plan addresses the social climate and academic needs of the school. The activities in these areas are based on research and analysis of school functioning, needs assessment, and student achievement. The Staff Development Program is based on training needs that arise from the school plan. Central office supervisory personnel provides support for staff development activities initiated at the building level. These two key operations are carried out or supervised by the SPMT. These components and operations will be described in greater detail in the following paragraphs. All activities and programs are monitored and assessed by the SPMT in monthly and summatively evaluated at the end of the school year.

SDP Intervention Mechanisms and Operations

The School Planning and Management Team (SPMT)

The SPMT includes the school principal, a MHT member, and representatives selected by teachers and parents. This group is led by the principal and meets bi-monthly to:

- establish policy guidelines for all aspects of the school program,
- carry out systematic school planning related to social climate, academics, and staff development;
- determine and evaluate resource utilization and coordination and program implementation;
- monitor program activities;
- work closely with parents to plan an annual school calendar which integrates social, academic, and staff development functions; and
- respond directly to problems and/or opportunities, or delegate this responsibility to other groups or individuals who will report back.

The Mental Health Team (MHT)

The Mental Health Team is made up of the school social worker, psychologist, special education teacher, counselor, and any other support staff in the building. This group is also led by the school principal. It works in a preventative and prescriptive fashion to provide on-going consultation to teachers and the SPMT in matters of child development and behavior. It meets on a weekly basis to:

•apply through its representative on the SPMT, child development and relationship knowledge and skills to the social climate, academic, and staff development programs developed by the SPMT;

- facilitate the many interactions between parents and school staff;
- consult with classroom teachers to assist them in responding to students in a way that promotes healthy growth and development;
- assist classroom teachers in developing strategies that prevent minor problems from becoming major ones;
- set up individualized programs for children with special needs which may involve the utilization of services outside of the school when necessary and possible;
- assist all staff members in bridging the gap between special education and regular classroom activities;
- provide consultation and training workshops to staff and parents on child development, human relations, and other mental health issue, and;
- make recommendations for building level policy changes designed to prevent problems.

The Parent Participation Program

The SDP views parental involvement as the cornerstone for success in developing a school environment that stimulates the total development of its students. Parents are expected to:

- select their representative to serve on the governance and management team;
- review the comprehensive school plan;
- work with staff in developing and carrying out activities of the parent-teacher general membership group (PTO PTA) in line with the overall school plan; and
- support the efforts of the school to assist students in their overall development.

The Comprehensive School Plan gives direction and specific focus to the school improvement process. It provides a structured set of activities in the areas of academics, social climate, staff development, and public relations, that enables the governance body to establish priorities, and to approach school improvement in a well coordinated and systematic fashion. It utilizes data (student achievement and behavior, attendance, and the perceived needs of educators and parents) collected at the school site in order to generate goals and objectives.

Staff Development activities are based on training needs that stem from the school plan. Decisions about staff development are made by the SPMT and management body with support from Central Office Personnel. This program:

- organizes periodic workshops (for teachers and parents) based on identified needs and program objectives at the building level;
- creates workshops to provide teachers with those skills proven to be most effective in working with students;
- allows the staff to integrate academic, arts, social, and extra-curricular activities into a unified curriculum; and
- encourages teachers to develop special curriculum units in the skill areas most needed by their students, i.e. government, business, health and nutrition, and leisure time/spiritual activities.

Monitoring, assessment, and evaluation are employed to 1) refine program operations and 2) provide the SPMT and MHT with a summative report of program outcomes.

Middle School Focus

While the basic structure and function of the SDP remains unchanged at the middle school level, the content of team meetings and the issues that arise within the middle school setting are more complex than the issues that are relevant to elementary schools. This necessitates the careful coordination of the all the Process teams to ensure that students psychosocial needs are being addressed. The SDP embraces the recommendation of the Carnegie Council's Turning Points (1990) that "Schools should be a place where close, trusting relationships with adults and peers create a climate for students' personal growth and development (p. 10). Findings from this study will be used to support schools in their efforts to improve the educational experiences of middle school students and to enable the provision of academically and developmentally appropriate practice.

Method

Sample Selection:

In this study, four middle schools were identified, two were schools which had been participating in the Comer School Development Program since 1987, and two were Non-Comer schools.

Students from the four middle schools were selected through proportional stratified sampling procedures in order to assemble a sample representative of the total student population at each school. The sample was proportionately stratified by race, gender, and grade level.

Description of Subjects:

The sample consisted of 318 students from four middle schools in a North Eastern urban center. Subjects selected from the two Comer schools comprised the Comer status group, and subjects selected from the remaining two schools comprised the non-Comer comparison group. Students selected for this study were enrolled in regular academic courses. There were no special education or gifted students selected to participate.

Of the 318 students, 49.8% were male and 50.2% were females (9 students did not indicate gender). The majority of the students were African-American (62.9%), 7.4% were

White, 27.4% were Latino, and 2.3% were categorized as other. Slightly over 21% of the students were fifth-graders, 31.2% were in the sixth grade, 20.4% were in seventh grade, and 26.9% were eighth grade students (see Table 1).

One hundred forty-six students attended the Comer schools, while 172 students attended the Non-Comer schools. The demographic characteristics of both groups of students are presented in Table 2.

Instrumentation:

Psychosocial data were collected using the short form of the Tricket and Moos Classroom Environment Scale, and the Piers-Harris Student Self-Concept Scale. Achievement data were collected using the Language, Math, Reading and Total Scaled Score batteries of the Metropolitan Achievement Test Sixth Edition.

Classroom Environment Scale (CES): Developed by Tricket and Moos in 1974, the CES was used in short form. The 30 item scale seeks to examine the social climate of junior high and high school students. The scale focuses on teacher-student and student-student relations as well as on the organizational structuring of the classroom (McGrail, Wilson, Buttram, Rossman, 1987). Students are asked to respond "yes" to statements with which they agree and "no" to statements with which they disagree. The reliability of the scale was established for this sample using the Cronbach's alpha. The coefficients are reported in Table 3. The means and standard deviations for the total sample are also presented in Table 3.

Piers-Harris Student Self-Concept Scale: Developed by Ellen V. Piers and Dale B. Harris, this scale is an 80 item, self-report questionnaire designed to assess how children and adolescents feel about themselves. Self-concept as assessed by this instrument is defined as a relatively stable set of self- attitudes reflecting both a description and an evaluation of one's own behavior and attributes (Piers, 1984). Children are asked to respond "yes" or "no" to each statement. A high score suggests a positive self-evaluation, a low score suggests a negative self-evaluation. Six subscales were derived through factor analysis:

Behavioral self-concept - reflects the extent to which the student admits or denies problematic behaviors. High scores may reflect a lack of behavioral problems or an unwillingness to acknowledge them. Low scores suggest acknowledged behavioral difficulties;

Intellectual and School Status - reflects the student's self-assessment of his or her abilities with respect to intellectual and academic tasks including general satisfaction with school and future expectations;

Physical Appearance and Attributes - reflects the child's attitudes concerning his or her physical characteristics as well as attributes such as leadership and the ability to express ideas;

Anxiety - reflects the general emotional disturbance and dysphoric mood. Individual items tap a variety of specific emotions including worry, nervousness, shyness, sadness, fear and a general feeling of being left out of things. A high score on this subscale indicates low anxiety.

Popularity - reflects the child's evaluation of his or her popularity with classmates, being chosen for games, and ability to make friends. Low scores may reflect shyness, lack of interpersonal skills, or personality traits which tend to isolate the child from others.

Happiness and Satisfaction - reflects a general feeling of being happy and easy to get along with, and generally satisfied with life. Low scores are associated with general dissatisfaction, feelings of negative self-worth and a longing for things to be different.

The reliability coefficients and descriptive statistics for each subscale is reported in Table 3.

Metropolitan Achievement Test **Sixth Edition** **(MAT6)**: The diagnostic batteries of this test are designed to measure the achievement of students in the major skill and content areas of the schools curriculum (McGrail, Wilson, Buttram, Rossman, 1987). The reading test measures the student's vocabulary, word recognition skills, and reading comprehension. The math test assesses knowledge of math concepts, problem solving, and computation. The language test focuses on listening comprehension, punctuation, capitalization, usage study skills, and written expression. These diagnostic batteries provide criterion referenced measurement that estimate the optimal level at which students can learn. The total scaled score was also used. Means and standard deviations for the total sample are reported in Table 4.

Data Analysis

Data for this study were collected over a three year period (1989, 1990, 1991). For the purpose of this paper, only the 1989 data will be presented.

Specific research questions raised in this study were addressed in using Pearson Product Moment Correlations, and Multivariate Analysis of Variance (MANOVA). Each question was tested at the .05 level of significance:

- What relationships exist among the psychosocial, achievement, and student characteristic variables?
- How do Comer students compare with non-Comer students with regard to achievement as measured by the diagnostic batteries of the MAT6 tests?
    1) Will significant differences in math, reading, and language exist on the basis of grade level and Comer status?
    2) Will there be significant interaction effects of grade level, and Comer status on achievement?
- How do Comer students compare with non-Comer students with regard to psychosocial adjustment as measured by the Classroom Environment Scale and the Piers-Harris Self-

Concept Scale?

1) Will significant differences in psychosocial adjustment exist on the basis of grade level and Comer group status?

2) Will there be a significant interaction effect of grade level and Comer status on psychosocial adjustment?

Variables:

In the multivariate analyses, the student characteristic variables (grade level, and Comer status) were used as independent variables. Psychosocial adjustment (dimensions of self-concept, and classroom environment), and Achievement (language, math, and reading) variables were used as dependent measures.

Results

Correlational Analyses

Pearson Product Moment correlations were computed for the total sample to examine whether relationships would exist among the psychosocial, achievement and student characteristic variables. The findings from this analysis are presented in Table 5. The significant correlations among the variables are reported here. Reading ($r=.41$; $p<.01$) and math ($r=.29$; $p<.01$) achievement were significantly correlated with grade level.

Highly significant correlations were observed between classroom environment and the behavioral self-concept variable ($r=.36$; $p<.001$). Classroom environment was also observed to be significantly related to: intellectual and school status ($r=.28$; $p<.01$), happiness and satisfaction ($r=.26$; $p<.01$), and physical self-concept ($r=.25$; $p<.01$).

Within group correlations were also computed to examine whether significant relationships among the variables would exist for each group. For the Comer group, classroom environment was found to be significantly related to the: behavioral (r=.44; p<.01), intellectual and school status (r=.43; p<.01), popularity (r=.39; p<.01) and physical self-concept variables (r=.41; p<.01). Significant relationships were also observed between reading and grade level (r=.43; p<.01) and also between math achievement and grade level (r=.39; p<.01). These findings may be seen in Table 6.

For the non-Comer group, significant relationships were only found between the classroom environment and happiness and satisfaction variables(r=.35; p<.01), and between reading achievement and grade level (r=.36; p<.01). See Table 7.

Tests of Significance

Psychosocial Indicators

Multivariate F tests were performed to examine whether Comer status, and grade level or interactions of these variables would have significant effects on the dependent variable set.

Homogeneity of variance tests were conducted to test for within group variability on the basis of race, gender, grade level and school affiliation. Results indicated unequal variances for the self-concept variables, on the basis of race and gender. Complete data were available for 200 subjects. Only the significant results will be discussed in this section. Findings from this analysis are presented in Table 8.

The results of the multivariate analysis revealed a significant Comer status effect on the dependent variable set (Wilks=.87; F=3.71; p<.001). A post-hoc discriminant analysis revealed canonical correlations ranging from a high of .72 for intellectual and school status to a low of .08 for behavioral self-concept.

A significant interaction of Comer Status and grade level was also observed in the multivariate analysis (Wilks=.82; F=1.69; p=.028). A follow-up discriminant analysis revealed the correlation between the psychosocial variables and the canonical variate. The correlations ranged from a high of .52 for physical self-concept to a low of .02 for the behavioral self-concept variable. An examination of the means show Comer students consistently having higher mean scores on the psychosocial variables than non-Comer students. Fifth grade Comer students were observed to have the highest mean scores for the classroom environment variable, and also for the behavioral, physical, and intellectual and school status self-concept variables. Eighth grade Comer students were observed to have the highest mean scores on the popularity, anxiety, and happiness and satisfaction self-concept variables. See Table 9.

Achievement Indicators

In this analysis, grade level, and Comer status were used as independent variables and math, reading, and language achievement scores were used as the dependent variables. There was insufficient achievement data for students in grades 7 and 8, therefore achievement data for the fifth and sixth grade students were used in this analysis. The effects of race and gender were covaried in this analysis due to the unequal and small numbers representing the subgroups in each cell. Complete data were available for 88 students. Findings from this analysis may be seen in Table 10.

An examination of the means show higher scores in math achievement at grade 6 for both the Comer and non-Comer students. For language achievement, fifth grade students in Comer schools had higher mean scores than sixth grade students. The reverse was true for non-Comer students. For Sixth grade students in the Comer schools had higher mean scores in reading than fifth grade students. The same pattern was observed for the non-Comer students.

Discussion

Key among the findings in this study are the relationships among the self-concept variables and classroom environment found in the correlational analyses and the interaction of grade level and Comer status on the psychosocial variables.

The findings from the correlational analyses for Comer students indicate that an increase in student classroom environment scores are accompanied by an increase in their scores on the behavioral, intellectual and school status, popularity, and physical self-concept subscales. This suggests that for Comer students, the more positive their perceptions of classroom environment, the stronger their self-perceptions along those dimensions of self-concept. For the non-Comer students, the findings suggest that the more positive students perceive their classroom environment, the higher their scores on the happiness and satisfaction dimension of self-concept.

These findings support a basic tenet of the Comer philosophy that the relationships among the teacher, student and peers are essential to promoting healthy psychosocial adjustment and school performance among children. The highly significant correlation between overall self-concept and classroom climate also suggests that when focused, deliberate attention is placed on relationship issues and on school and classroom organization to ensure that students are treated equitably, with respect, and with high expectations for achievement, students are very likely to have a high degree of self-esteem or self-regard.

To the extent that this nurturing climate exists, the findings also indicate that students will feel more positive about themselves behaviorally and will have higher regard for themselves academically. Moreover, they will feel more comfortable with their physical appearance and other personal attributes and will tend to exhibit attributes and personality traits which tend to be associative, creating a sense of belonging and connectedness to peers and as well as adults.

These findings have important implications for educational interventionists. Schools and classrooms are socializing arenas in which role models are identified and peer groups are formed. Thus the extent to which there are nurturing adults and well adjusted peers with whom students can associate, may mean the difference between having positive school experiences which encourage persistence in school and build a foundation for success in later life, or feeling isolated, unwelcome, and dissociated which may lead to anti-social behavior and ultimately to psychosocial difficulties in later life. For the non-Comer group, a significant correlation between classroom climate and happiness and satisfaction suggests that the classroom environment engenders amiability and a general sense of contentment and satisfaction with life.

When multivariate tests of significance were applied to the psychosocial data, a significant Comer status effect on the dependent variable set was observed revealing high scores for Comer students and significantly high correlations between the intellectual and school status variable with the canonical variate. A significant interaction of Comer status and grade level was observed, with Comer students having consistently having higher mean scores, particularly at grades five and eight. Physical self-concept had the highest correlation with the canonical variate. It was interesting to note that fifth grade students seemed to have higher scores on the psychosocial variables, with the exception of physical self-concept, that are specific to daily classroom interactions, while eighth graders seemed to be more concerned with social factors, peer relationships, and life events.

These finding have important implications for developmentally appropriate intervention for middle school students. Students at the middle school level are at a relatively tumultuous stage of development as they approach adolescence. Particular attention should be given to the development of positive attitudes about appearance i.e. body image and ethnic characteristics, leadership abilities and peer group formation. Opportunities for social skill development, cultural awareness, physical fitness, and appropriate interaction with opposite sex peers should be infused into the curriculum at appropriate grade levels.

With regard to achievement, it was not surprising to find a significant correlation between grade level and achievement since it is expected that the older students get the more test-taking opportunities they will have, and the more time they will have to develop skills in math problem-solving, reading comprehension, and written expression. For students in the Comer group, relationships existed between grade level and every measure of achievement except language achievement. Similarly, for the non-Comer group, a significant relationship was observed between reading achievement and grade level.

When tests of significance were applied to the achievement data, no significant Comer status effects or interaction effects with grade level were observed. It is interesting to note that significant differences of intellectual and school status were found in favor of the Comer group, but not with regard to achievement alone. It would be expected that positive attitudes about learning and school performance among Comer students would be associated with high achievement. However, research suggests that attending to the psychosocial needs of students is an important prerequisite for school success. This is particularly true for children attending inner city schools. When this approach is taken, students are "primed" for learning and the stage is set for positive interactions among peers and with adults in the classroom.

These findings bring to bear the necessity to integrate social development strategies with cognitive development curricula so that these students will have the opportunity to build important social networks, develop leadership skills and strengthen academic skills. Curricula should provide more opportunities for students to engage in activities that would allow them to maximize the effects of development in the affective domain in order to achieve greater gains in the cognitive domain. Cooperative learning activities have been cited as strategies by which students develop both psychosocially and cognitively.

The 1990 and 1991 data may show significant Comer status differences in achievement over time. In addition, data are available on teacher ratings of student classroom performance.

Summary and Conclusion

The Comer School Development Program is a school intervention process whereby parents, administrative and instructional staff work together to create an atmosphere conducive to student growth, development and achievement. The findings from this preliminary analysis support the basic tenets of the Comer process and highlight the critical link between a nurturing classroom environment and a positive sense of self. The Pearson correlations for the total sample as well as the within group correlations showed significant relationships between classroom environment and the various dimensions of self-concept. This indicates that the more positive students feel about the interactions and relationships with peers and teachers, the more likely it is that students will have more positive perceptions of themselves behaviorally and that they will have positive attitudes about physical characteristics, leadership attributes and ability to express ideas.

The preliminary findings from this study have significant implications for educational interventionists:

1) Classroom environment promote positive attitudes toward school. The better students feel about school, the more likely it is that they will persist and achieve. Positive climates can be fostered by a) having school principals and instructional staff take the lead in engendering an environment of respect and trust, b) treating all students fairly and equitably regardless of background, and c) by having high expectations of all students.

2) Particular attention should be paid to the development of social and academic skills in order to

ensure long term success in school and in later life. This can be done through holistic academic innovations such as cooperative learning, and multi-age grouping.

3) Developmentally appropriate practice for middle school students should include activities which prepare students for the stresses, peer pressure, and social interactions they will encounter as adolescents. This can be done by infusing into the curriculum activities which focus on leadership development, appreciation of cultural and ethnic diversity, and opportunities for appropriate interaction with opposite sex peers.

Future analyses of these data will include examinations of teacher ratings of student performance, and additional measures of behavioral adjustment.

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Table 1. Demographic Description of Total Sample

	Number	Percentage
Gender		
Male	154	49.8
Female	155	50.2
Race		
Black	195	62.9
White	23	7.4
Latino	85	27.4
Other	7	2.3
School		
School A (Comer)	68	21.4
School B (Comer)	78	24.5
School C	55	17.3
School D	117	36.8
Grade		
5th	60	21.5
6th	87	31.2
7th	57	20.4
8th	75	26.9

*N's vary due to missing data; valid percent is reported

Table 2. Breakdown of Sample by Comer Status Group

	Comer		Non-Comer	
	N	%	N	%
Gender				
Male	64	45.4	90	53.6
Female	77	54.6	78	46.4
Race				
Black	101	70.6	94	56.3
White	01	.7	12	13.2
Latino	38	26.6	47	28.1
Other	3	2.1	4	2.4
Grade				
5th	21	16.7	39	25.5
6th	39	31.0	48	31.4
7th	36	28.6	21	13.7
8th	30	23.8	45	29.4

*N's vary due to missing data; valid percent is reported.

Table 3. Descriptive Summary of the Piers Harris Self Concept Subscales and Classroom Environment Scale.

Variable	Number of Subjects	Number of Items	Mean	SD	alpha
Classroom Environment	279	30	49.74	3.6	.68
Self Concept:					
Behavioral	228	16	13.0	2.7	.73
Intellectual/School Status	228	17	13.1	2.8	.70
Physical Appearance & Attributes	228	13	9.6	2.6	.71
Anxiety	228	14	10.1	3.1	.77
Popularity	228	12	8.5	2.5	.64
Happiness/Satisfaction	228	10	8.8	1.7	.66
Total Self Concept	228	80	59.6	9.5	.87

* N's vary due to missing data

Table 4. Comparison of Student Reading, Math, Language and Total Scaled Score Achievement by Comer Group Status.

	Comer		Non-Comer	
	Mean(N)	SD	Mean (N)	SD
Reading	636.3(66)	40.4	626.2(74)	38.5
Math	631.7(66)	28.3	630.6(70)	35.9
Language	627.9(66)	25.0	627.8(73)	30.5
Total Score	631.2(66)	27.1	627.9(69)	33.5

Table 5. Pearson Product Moment Correlations Among the Psychosocial, Achievement, and Student Characteristic Variables (Total Sample)

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
1. MAT 6 Total	1.00	-.09	.36**	-.01	.11	-.07	.13	.06	.04	.03	.07	.90**	.89**	.92**	.08
2. Group Status		1.00	-.23	.06	-.00	.08	-.25	-.03	-.00	-.01	-.24	-.03	-.03	-.15	-.11
3. Grade Level			1.00	-.15	.12	-.10	-.10	.13	-.04	.04	.03	.22	.29*	.41**	-.00
4. Class Env.				1.00	-.08	.36**	.28*	.01	.26*	.24	.25	.06	-.00	-.05	.37**
5. Gender					1.00	-.04	.07	.23	.08	.09	.06	.00	.12	.14	.15
6. Behavioral						1.00	.25*	.03	.38**	.07	.22	-.07	-.11	-.03	.55**
7. Intellectual							1.00	.40**	.32**	.46**	.57**	.11	.14	.12	.72**
8. Anxiety								1.00	.25*	.63*	.20	.03	.05	.08	.61**
9. Happiness									1.00	.28*	.44**	.01	.09	.03	.55**
10. Popularity										1.00	.44**	.05	.04	.01	.68**
11. Physical											1.00	.06	.09	.04	.68**
12. Language Ach.												1.00	.75**	.77**	.08
13. Math Ach.													1.00	.70**	.05
14. Reading Ach.														1.00	.10
15. Total Self															1.00

*p<.01 **p<.001

Table 6. Pearson Product Moment Correlations Among the Psychosocial, Achievement, and Student Characteristic Variables (Comer Subjects)

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Grade Level	1.00	-.16	.03	-.00	-.07	.32	.05	.20	-.03	.40*	.39*	.43*
2. Class Env.		1.00	-.06	.44*	.44*	.19	.20	.41*	.42*	-.04	-.12	-.06
3. Gender			1.00	-.15	.05	.17	.05	.18	.14	-.01	.14	-.01
4. Behavioral				1.00	.27	-.01	.37*	.02	.43*	-.16	-.19	-.13
5. Intellectual					1.00	.28	.21	.42*	.53**	.01	-.09	.03
6. Anxiety						1.00	.38*	.64**	.27	.15	.21	.16
7. Happiness							1.00	.31	.30	-.06	.14	-.06
8. Popularity								1.00	.44**	.18	.17	.12
9. Physical									1.00	-.08	-.14	-.12
10. Language Ach.										1.00	.77**	.85**
11. Math Ach.											1.00	.73**
12. Reading Ach.												1.00

*p<.01 **p<.001

Table 7. Pearson Product Moment Correlations Among the Psychosocial, Achievement, and Student Characteristic Variables (Non-Comer Subjects)

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Grade Level	1.00	-.10	.19	-.17	-.22	-.02	-.10	-.08	-.00	.11	.22	.36*
2. Class Env.		1.00	-.09	.25	.25	-.14	.35*	.09	.18	.19	.11	-.03
3. Gender			1.00	.06	.06	.29	.15	.03	.00	.00	.15	.31
4. Behavioral				1.00	.35*	.10	.35*	.18	.12	.02	-.06	.13
5. Intellectual					1.00	.53*	.42*	.52**	.55**	.18	.23	.13
6. Anxiety						1.00	.16	.61**	.15	-.03	-.06	-.00
7. Happiness							1.00	.33	.55**	.04	.13	.13
8. Popularity								1.00	.46**	.00	.01	-.10
9. Physical									1.00	.14	.20	.11
10. Language Ach.										1.00	.73**	.71**
11. Math Ach.											1.00	.69**
12. Reading Ach.												1.00

*p<.01 **p<.001

Table 8. Summary of Psychosocial Adjustment as a Function of Grade Level and Comer Group Status on Psychosocial Variables.

Multivariate Test of Significance

	Wilks' Lambda	F	p
Status by Grade Level	.83	1.69	.028
Grade Level	.89	1.05	.39
Status	.87	3.71	.001

Correlations Between the Psychosocial Variables and Canonical Variates

	Status by Grade	Status
Classroom Environment	.23	.16
Behavioral Self-Concept	-.02	-.08
Intellectual and School Status	.07	-.72
Popularity	.13	-.08
Anxiety	.38	-.27
Happiness and Satisfaction	-.23	-.50
Physical Appearance & Attributes	.52	-.49

Table 9. Breakdown of Psychosocial Adjustment Variables by Grade Level and Comer Group Status

		Comer			Non-Comer	
	Mean	SD	N	Mean	SD	N
Classroom Env.						
Grade 5	51.16	2.69	12	50.51	3.97	29
Grade 6	49.84	4.24	33	50	3.2	34
Grade 7	49.11	4.48	27	50.36	3.8	11
Grade 8	48.7	3.88	25	49.89	3.39	29
Behavioral Self-concept						
Grade 5	13.66	2.22	12	13.37	2.85	29
Grade 6	13.27	2.98	33	13.55	2.68	34
Grade 7	13.07	2.11	27	12.63	2.42	11
Grade 8	13.24	2.93	25	13.17	2.42	29
Intellectual						
Grade 5	15.	1.27	12	12.89	3.82	29
Grade 6	14.36	1.91	33	12.82	2.99	34
Grade 7	13.48	2.34	27	11.36	3.47	11
Grade 8	13.72	2.79	25	12.55	2.53	29
Popularity						
Grade 5	8.66	2.06	12	8.06	2.71	29
Grade 6	9.09	1.97	33	8.85	2.14	34
Grade 7	8.29	2.58	27	8.72	2.14	11
Grade 8	9.6	1.63	25	9.00	2.37	26
Anxiety						
Grade 5	9.7	2.45	12	10.72	2.42	29

Table 10. Summary of Achievement as a Function of Grade Level and Comer Group Status

Multivariate Test of Significance

	Wilks' Lambda	F	p
Status x Grade	.99	.20	.89
Grade	.86	4.06	.01
Status	.95	1.30	.27

Correlations Between Achievement Variables and Canonical Variates

Dependent Variable	Grade Level
Math	.72
Language	.15
Reading	.60